IOWA LAKES COMMUNITY COLLEGE

COLLEGE CATALOG
2015-2016
Catalog 2015-2016

Table of Contents

The College ................................................................. 4
Academic Policies and Procedures ................................ 13
College Transfer and Career Option Programs ................. 20
Technical Programs ...................................................... 25
Vocational Programs .................................................... 35
Certificate Programs ..................................................... 39
Course Numbers .......................................................... 40
Course Descriptions .................................................... 41
Faculty and Staff ........................................................ 99
Index ........................................................................... 104
Academic Calendar ....................................................... 106

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Algona, Iowa 50511
(515) 295-9455  1-877-807-9583
FAX (515) 295-3729

**Continuing Education**
300 South 18th Street
Estherville, Iowa 51334
(712) 362-7231  1-800-252-5664
FAX (712) 362-3969

**Farm Laboratory**
4145 360th Street
Emmetsburg, Iowa 50536
(712) 852-3027

**Administrative Offices**
19 South Seventh Street
Estherville, Iowa 51334
(712) 362-2601
FAX (712) 362-0480

**Emmetsburg Campus**
3200 College Drive
Emmetsburg, Iowa 50536
(712) 852-3554  1-800-242-5108
FAX (712) 852-2152

**Estherville Campus**
300 South 18th Street
Estherville, Iowa 51334
(712) 362-2604  1-800-242-5106
FAX (712) 362-8363

**Spencer Campus**
1900 Grand Avenue, Suite B1
Spencer, Iowa 51301
(712) 262-7141  1-877-807-9585
FAX (712) 262-4047

**Spirit Lake Campus**
800 21st Street
Spirit Lake, Iowa 51360
(712) 336-3439  1-877-807-9584
FAX (712) 336-1357


Individuals having questions or complaints related to compliance with this policy should contact Kathy Muller, Iowa Lakes Community College EEO/AA Officer at 712-362-0433 or the Director of the Office for Civil Rights, U.S. Department of Education, Citigroup Center, 500 W. Madison, Suite 1475, Chicago, IL 60661, phone number 312/730-1560, fax 312/730-1576

All provisions herein contained are subject to change without notice and do not constitute a contract or offer to contract with any person.
THE MISSION
Iowa Lakes Community College is a public, comprehensive educational institution accredited by the Commission on Institutions of Higher Education of the North Central Association of Colleges and Schools. The college was established in 1967 under provision of Chapters 260C and 260D, Code of Iowa. “To provide opportunities for quality lifelong learning and promote economic development for [the] communities” of northwest Iowa is the mission of Iowa Lakes Community College. Over 72,000 people reside in this predominately rural five-county district encompassing approximately 2,900 square miles. Through its five campuses and an interactive distance learning system, Iowa Lakes currently enrolls more than 3,900 full- and part-time students. The college offers liberal arts, career option and vocational-technical courses leading toward associate degrees, diplomas and certificates. It is committed to continuous quality improvement while serving the changing needs of its constituents.

Iowa Lakes Community College is noted for its innovative and visionary programming. In 1982, it was the second community college in the state to build an Instructional Television Fixed System (ITFS) providing interactive television access to five college sites and 14 secondary schools. In 1993, Iowa Lakes became the first community college to complete a hook-up with the Iowa Communications Network (ICN), a fiber optic interactive video system linking all community colleges and the regents’ universities in the state. This system now links other colleges, public schools, hospitals and government agencies throughout Iowa as well.

In 1985, Iowa Lakes became the first Iowa community college to mandate entrance assessment of all new students. The goal of this assessment program is to help all students be successful in college by ensuring development of minimum competencies in mathematics, writing and reading prior to graduation from Iowa Lakes.

The college offers a variety of outreach services to area communities including a full schedule of continuing education courses, college preparatory courses, support programming, business/industry training and retraining programs, and facilitation of economic development.

Finally, Iowa Lakes collaborates with three four-year institutions offering baccalaureate degree programs to area citizens who are unable to relocate due to job or family commitments.

OPPORTUNITIES
- Extend opportunities for personal and professional growth that are responsive to the dynamic needs of the individual and society.
- Guarantee access to postsecondary education opportunities through an “open door” policy.
- Ensure all constituents have the opportunity and the support necessary to take advantage of the postsecondary education programs and services offered by the college.
- Provide appropriate personnel services.

LIFELONG LEARNING
- Provide learner centered activities that empower individuals to reach their potential and fulfill their personal and career goals.
- Enable students to complete the first two years of college work, including general education and pre-professional education and upon completion to achieve successful transfer to four-year colleges and universities.
- Enable students to complete vocational and technical programs designed to prepare them for employment in occupations in a global society.
- Provide opportunities for individuals to continue learning throughout their lifetime.
- Provide programs for high school completion and development of the academic foundation necessary for success in college.
- Enable eligible secondary students to participate in college courses for credit while still in high school.
- Provide vocational and technical training for persons not enrolled in high school and who have not completed high school.

ECONOMIC DEVELOPMENT
- Support partnerships among business, community and labor groups that strengthen the economic health and quality of life for area residents.
- Deliver programs for in-service training and retraining for workers to help employers maintain a competitive work force.
- Provide economic development assistance to area businesses, industries, cities and counties in cooperation with federal, state and local agencies.

COMMUNITIES
- Promote collaborations with communities that support access to college programs and services with sensitivity to diversity and equal opportunities for all.
- Promote among students an awareness of their responsibilities as citizens in our contemporary and dynamic society.
- Extend the scope of college resources through active partnerships with agencies in the service area.

HISTORY
Iowa Lakes Community College was officially organized in 1967 when the first board of directors met to begin planning for the organization and development of the college. Legislation passed by the Iowa legislature established Merged Area III as a part of a statewide plan. This area included all or parts of the counties of Clay, Dickinson, Emmet, Kossuth and Palo Alto and encompassed, at the time, 26 community school districts and two parochial school systems.

In 1968 the board approved the merger of the Estherville Junior College and its facilities into the new district. The college had been operated by the Estherville public schools since its founding in 1924.

The Emmetsburg Community College was merged in 1970 to accomplish the goal of operating two major campuses in the area. The college had been operated since 1930 by the Emmetsburg public schools.

Cameras are located at Emmetsburg, Estherville, Algona, Spencer and Spirit Lake.

The Estherville Campus is located in the eastern part of Estherville at 300 South 18th Street. Facilities serve liberal arts, career option, vocational and technical programs.

Vocational, technical, career option and liberal arts programs are offered at the Emmetsburg Campus in the northwest part of Emmetsburg at 3200 College Drive.

A facility in Algona was purchased in late 1986 and has been developed into a college campus with facilities for liberal arts courses, community and education services, and a success cen-
ter/library. The Algona Campus is located in the northern part of Algona at 2111 U.S. Highway 169.

The Spencer Campus, located at 1900 Grand Avenue includes facilities for liberal arts, technical, vocational courses, community services, education services, a success center/library, the area small business development center and Retired & Senior Volunteer Program.

The Spirit Lake Campus opened in 1984. In late 1995 the campus moved into new facilities located at 800 21st Street. The building houses evening, liberal arts courses, a computer lab, community services, education services, success center/library.

An instructional television system began offering courses to the area in 1983. Beginning with two channels, six sites and four courses, the system now televises 40 to 50 live college courses per semester to college sites. All courses necessary for a two-year Associate in Arts degree are offered on the system.

The college is also a participant in the Iowa Communications Network which allows sharing classes with other colleges in the state via a state-of-the-art fiber optic system. A classroom at each campus is equipped for two-way television and audio.

In addition, Iowa Lakes Community College is a member of the Iowa Community College Online Consortium providing extended online learning opportunities to our local service area and beyond through the World Wide Web, www.iowalakes.edu.

The continuing education department uses classroom facilities at college-owned sites and in Area III school districts to deliver instruction and services to local residents.

GOVERNANCE AND ADMINISTRATION

The college is governed by a seven-member board of trustees elected by the residents of Merged Area III. Administrative offices are located at 19 South Seventh Street in Estherville, which houses most members of the President’s Cabinet, central administrative staff and the college administrative computer center.

In addition to the college president, the President’s Cabinet consists of a vice president of administration, executive dean of instruction and development, executive deans of the Emmetsburg and Estherville campuses, executive director of business & community relations, executive director of facilities management, and the executive director of marketing, and executive dean of students.

The President’s Cabinet, along with supervisory personnel from the Administrative Team, manages the operation of the college district.

ACCREDITATION

Iowa Lakes Community College is accredited as an institution by the Higher Learning Commission, North Central Association of Colleges and Schools, 230 South LaSalle Street, Suite 7-500, Chicago, Illinois. In 1975, Iowa Lakes Community College was granted accreditation by the North Central Association of Colleges and Schools (now known as the Higher Learning Commission or HLC). Iowa Lakes is accredited by the Iowa Department of Education. State accreditation cycles are coordinated with HLC cycles.

The college is an institutional member of the American Association of Community Colleges. Programs are approved for veteran’s education and by the U.S. Justice Department, the Federal Aviation Administration, and the Iowa Board of Nursing. Some academic programs have also sought and received accreditations. Program web pages provide details of these program-level accreditations.

EQUAL OPPORTUNITY STATEMENT/ POLICY OF NONDISCRIMINATION

It is the policy of Iowa Lakes Community College not to discriminate on the basis of race, color, national origin, sex, disability, age employment, sexual orientation, gender identity, genetic information, creed, religion and actual or potential parental, family or marital status in its programs, activities, or employment practices as required by the Iowa Code §§216.6 and 216.9, Titles VI and VII of the Civil Rights Act of 1964 (42 U.S.C. §§ 2000d and 2000e), the Equal Pay Act of 1973 (29 U.S.C. § 206, et seq.), Title IX (Educational Amendments, 20 U.S.C §§ 1681 – 1688), Section 504 (Rehabilitation Act of 1973, 29 U.S.C. § 794), and Title II of the Americans with Disabilities Act (42 U.S.C. § 12101, et seq.).

If you have questions or complaints related to compliance with this policy, please contact Kathy Muller, EOE Officer, 19 South 7th Street, Estherville, IA 51334, 712.362.0433, kmuller@iowalakes.edu, or the Director of the Office for Civil Rights, U.S. Department of Education, Citigroup Center, 500 W. Madison, Suite 1475, Chicago, IL 60661, phone number 312/730-1560, fax 312/730-1576.

STUDENT SERVICES

ADMISSION

Iowa Lakes Community College maintains an open-door policy of admission for students who have the ability, character and preparation to benefit from the educational programs offered at the college. Application forms may be obtained from high school counselors or from any Iowa Lakes Community College campus. Telephone requests may be directed to 1 866-IA LAKES (866/425-2537). Online applications can be made at www.iowalakes.edu.

ADMISSION POLICIES-CREDIT PROGRAMS

Iowa Lakes admits students to the arts and science, career option, vocational and technical programs who generally have either a high school diploma or its equivalent as determined by the HiSET testing program. Individuals who have not completed one or the other may be admitted on an individual basis to various programs offered by the college. The college also offers programs to assist with high school completion or the HiSET.

Admission to the college does not ensure admission to all programs offered at Iowa Lakes. The college reserves the right to guide the placement of students on the basis of counseling, examinations, pre-enrollment interviews and past academic achievement, as well as space available in programs.

All students applying for admission to credit programs at the college must submit a completed Iowa Lakes application form, a transcript of high school work or the HiSET and official transcripts sent directly from each postsecondary institution of higher education attended. Basic skills assessment of English, reading and mathematics is done with every entering student at Iowa Lakes. The tests used are ASSET, COMPASS and the ACT. Those who are underprepared for college level courses may need to take courses to develop these skills further before entering college English or mathematics. Nursing applicants must submit ACT program scores and attend an advising session. Some programs require medical examinations and other assessments before admission and/or advance fee deposits.

Applicants will be notified of their admission to the college by the dean of enrollment management.

READMISSION

Students who have formerly attended Iowa Lakes Community College and who wish to return after an absence of a term (other than the summer session) should apply for readmission at the
admission office of the campus they plan to enter. Students readmitted after an absence will be required to fulfill current graduation requirements.

TRANSFER STUDENTS
Transfer students must complete all admission requirements including submission of official transcripts directly from every postsecondary school or college attended whether or not credit was earned.

INTERNATIONAL STUDENTS
A student from another country must complete the Admissions application form and provide financial information, sponsorship, and TOEFL scores. Official transcripts of all secondary school and higher education records must be sent directly to the admission office. Notarized translations must be included for non-English language records. Transcripts must include specific dates of school attendance, courses taken during each year of attendance, grades and the grading scale used. The college may use the services of a service bureau to help in evaluating transcripts from other countries; charges are paid by the applicant. Students whose native language is not English must submit evidence of their English proficiency by a score of 500 or above on the Test of English as a Foreign Language (TOEFL) in its paper form. A score of 173 or more is required on the computer version of the TOEFL or 61 on the Internet Based TOEFL prior to acceptance.

International students must submit evidence of financial ability to meet college and living expenses during the first year of attendance. A financial status questionnaire, available from the admission office, must be completed before an immigration I-20 form will be issued. Visa regulations of the U.S. Department of Immigration and Naturalization must be followed. This school is authorized under Federal law to enroll nonimmigrant students.

ADMISSION-CONTINUING EDUCATION
Admission to continuing education programs is varied and flexible. Adults are encouraged to enroll regardless of past educational achievement or number of years of formal education. Enrollment in adult basic education, high school completion, general adult education, adult vocational supplementary education, adult vocational short courses or professional continuing education is accomplished by contacting the continuing education office at 712/362-7231 or 800/252-5664.

RESIDENCY REQUIREMENTS
Students enrolling at Iowa Lakes Community College are classified as residents or non-residents for admission, tuition and fee purposes. Each student must declare residency correctly under applicable rules and laws of the state of Iowa as well as the policies of the college board of trustees. The primary determination of residency is the reason a person is in the state of Iowa; the second determination is the length of time the person has resided in Iowa. If a person is in the state primarily for educational purposes, that person will be considered a non-resident.

Students who have been classified as non-residents, and who believe they should be eligible for resident tuition, may apply for reconsideration of their cases. The director of records and registration (Registrar) may require two or more written documents, affidavits and other evidence considered necessary to establish the residency of the student. This may include voter registration information, driver’s license, motor vehicle registration, an Iowa state income tax return, and proof of Iowa homestead credit on property taxes, signed and notarized documentation from an employer verifying employment in Iowa, or a signed and notarized statement from the student describing employment and sources of support. Documentation must verify residency within the state of Iowa for at least 90 days prior to the term for which the student is enrolling.

Residence for college enrollment and fee purposes may be different from residence for other purposes. The burden of establishing exemption from non-resident status is with the student. The complete Uniform Policy on Student Residency Status is available from the registrar or from the State Board of Education.

An adverse decision by the director of records and registration may be appealed. The Academic Review Committee acts as the appeals body for residency questions. The decision of the committee is final.

An application form and further information is available from the records office at Emmetsburg or Estherville. A change of status is effective for the next term following the change.

ADVANCE REGISTRATION AND ORIENTATION

ADVANCE REGISTRATION
Registration for new freshmen takes place at Iowa Lakes during the summer. Iowa Lakes recognizes that the hectic fall registration procedure can be an unsettling, bewildering experience for a new student. The college has established an early registration date when family and friends are encouraged to accompany the student. Processes of advising and registration are accomplished in a convenient manner.

NEW STUDENT ORIENTATION
At the advance registration and orientation sessions, each student is assigned an academic advisor. Many students come to Iowa Lakes with a particular program of study in mind; these students are assigned advisors in those programs. Other students are undecided about their future. In such cases, students are encouraged to access the Career Resource Centers located in Estherville and Emmetsburg. Career interest assessment, career resource libraries and individual appointments with advisors/counselors may help clarify academic and career goals.

Orientation continues during the first day of the term. Payment of tuition and fees is the final step in registration. The orientation process continues through the term and ends with scheduling, registration and payment of tuition and fees for the next term. All new freshmen who register as full-time day students should attend College 101.

STUDENT RESPONSIBILITY FOR COLLEGE INFORMATION
Each student is responsible for information appearing in the catalog, student handbook and other college publications. Failure to read the regulations and other information will not be considered an excuse for noncompliance. The college reserves the right to change policies or to revise curricula as necessary due to unanticipated circumstances. Program or course availability may be affected by enrollments, funding, or instructor availability.

If a student feels that extenuating circumstances might justify the waiver of a particular college policy, procedure, or regulation, a petition may be filed according to established procedures. Contact the director of records and registration for information.

Each student’s assigned college e-mail address will be used for all official college business.

CLASS PARTICIPATION
To help ensure academic success, students are expected to attend all class meetings for the courses in which they have enrolled. Any absence, regardless of the reason, results in the loss of instruction and interferes with the learning process. Absence does not lessen the student’s responsibility for meeting the requirements of any course and it is the student’s responsibility to complete the work missed. The specific participation and make-up policies of each instructor are contained in course orientation information and/or course syllabus. Students are expected
to complete all class assignments and examinations on time. When a student anticipates missing a test or a class, a telephone call in advance to the instructor may save a great deal of difficulty later.

**ACADEMIC HONORS**

The deans' honors list is published each term which includes names of those full-time students (12 or more graded credits) who have earned a grade point average of 3.25 to 3.99. Students with a 4.00 grade point average are placed on the college president's honors list. The lists are released to area news media.

Candidates for graduation who have earned a cumulative grade point average of 3.25 or higher are honored at the commencement ceremony by identifying their honors in the printed program. Three classes of recognition are indicated:

- Cum laude 3.25 - 3.49
- Magna cum laude 3.50 - 3.74
- Summa cum laude 3.75 - 4.00

Graduation honors are also posted on the academic record based on the final cumulative GPA.

**ACADEMIC PROBATION AND RETENTION**

Iowa Lakes Community College provides assistance to students to help them to succeed academically. The purpose of academic probation at Iowa Lakes is to indicate the need for special or individualized help for the student who has academic difficulty. The college is concerned when a student has problems and faculty and staff are available to provide assistance. Academic probation is somewhat different from financial aid probation, which is also covered in this catalog.

**ACADEMIC PROBATION STATUS**

A status of probation means that the student and advisor must meet to determine what course of action will lead to success during the next enrollment period. Strict probation means that the student may continue enrollment only with a written contract for performance; failure to meet the terms of the contract results in immediate suspension from classes. Participation in Strategies for Academic Success (or an alternative assignment approved by the facilitator) is usually required of students on strict probation, except during the summer term. Suspension means that a student is prohibited from attending classes and is dropped from all courses. A suspension is for a full semester; a second suspension is for a year. A semester is counted if the student is enrolled for six or more credits.

After the first semester in college, a new freshman will be placed on probation if the GPA is less than 1.50. The student will be placed on strict probation if the GPA is less than 0.80. After more than one semester in college, a student will be placed on probation if the cumulative GPA is less than 2.00. A student with more than one semester in college will be placed on strict probation if the cumulative GPA remains less than 2.00 or if the term GPA is less than 1.00 and the cumulative GPA drops below 2.00.

A student on strict probation will be suspended if the term GPA is less than 2.00.

A student on probation or strict probation may continue enrollment if the term GPA is 2.00 or better, even if the cumulative GPA does not reach 2.00.

A student who earns a cumulative GPA of 2.00 or better will be returned to academic good standing. The Academic Review Committee will review records of students on continued probation and may revise status based on further information such as absences, excessive number of I', Q' or W' grades, etc. Transfer students will be placed on probation if a similar record at Iowa Lakes would result in a probationary status.

**FINANCIAL AID SATISFACTORY ACADEMIC PROGRESS STANDARDS**

**GENERAL INFORMATION**

The U.S. Department of Education requires each institution to establish and consistently apply standards of reasonable academic progress to all students who want to establish or maintain financial aid eligibility. This federal requirement indicates that students must maintain satisfactory progress toward their degree objectives in order to receive financial aid. Iowa Lakes Community College has established their standards, which are based on qualitative and quantitative measures. They require students to:

1. Maintain a minimum cumulative grade point average at the completion of each term.
2. Maintain a specific pace of completion at the end of each term.
3. Achieve their program completion within 150% of the published length of the program in credit hours attempted.

**MAXIMUM TIME FRAME REQUIREMENT**

You will not be eligible to receive financial aid once you have attempted more than 100 percent of the normal credits required for your degree or diploma program, or once it becomes clear that you cannot mathematically finish the program within the 150% maximum time frame. (For example: programs requiring 60 credit hours for graduation, 90 credit hours would be the 150% program maximum.) All attempted hours are counted, including transfer hours, whether or not financial aid was received or the course work was successfully completed. Standards are established as minimum requirements for students who receive financial aid from any federal, state, and institutional programs administered by Iowa Lakes.

**MAKING PROGRESS TOWARD A DEGREE**

Students must maintain a minimum 1.75 cumulative G.P.A. at the end of the first term of enrollment. Each subsequent term after the first, students will be required to maintain a 2.0 cumulative G.P.A.

The student must successfully complete 70% of their attempted credit hours. Successful completion of courses are defined as receiving a grade of A, B, C, D, or P. Courses receiving grades of F, I, W, K, Z or Q are not counted as completed grades. Students must complete their program requirements within a time frame equivalent to 150% of their program length and/or credit hours required for graduation purposes. Transfer credits attributable to the student’s degree will be evaluated to determine the student’s Satisfactory Progress status.

**SATISFACTORY ACADEMIC PROGRESS- WARNING STATUS**

Students are placed in a warning status the first time they do not meet the minimum cumulative grade point average and/or pace of completion requirement. During the warning term, students remain eligible to receive financial aid for one term. To remain eligible to receive financial aid in future terms the student must, during the warning term:

1. Increase their cumulative grade point average to meet the minimum grade point average.
2. Successfully complete all courses attempted with grades of A, B, C, D, or P.
3. Be able to reach Satisfactory Academic Progress by the
Students are declared ineligible for financial aid if they:

1. Do not meet the warning status requirements as listed above.
2. Do not achieve their program objectives within 150% of the published time frame of the academic program as measured in credit hours.
3. Complete the semester with letter grades of “F” and/or “W”.
4. Complete the semester with a G.P.A. of 0.0.
5. Completing 0.0% of their attempted credit hours.

Regaining Eligibility

1. Students may earn the necessary grade point average or semester hours while not receiving financial aid (enrolled at their own expense).
2. Students may submit written appeals documenting extenuating circumstances that prevented them from meeting the standards. Extenuating circumstances include, but are not limited to:
   a. Injury or illness of student.
   b. Death of immediate family member.
3. Appeals should be submitted to the Financial Aid Office at Emmetsburg. The appeal needs to be accompanied by an Academic Plan Worksheet signed by the student and his/her advisor. Decisions on appeals will be made and the decision will be communicated to the student within 15 working days of receipt of the appeal. When appeals are approved, students are given specific requirements to meet. Students who do not have appeals approved are declared ineligible for financial aid.
4. If an appeal is granted, the student will be placed on either Probation or on an Academic Plan:
   • If the student is placed on Probation, they are eligible for financial aid for that term. At the end of the term they are re-evaluated and are either making satisfactory academic progress or are ineligible. If they are ineligible, they are the opportunity to appeal.
   • If the student is placed on Academic Plan, they will remain on the plan until they either are meeting satisfactory academic progress of they fail to follow the plan. If the student fails to follow the plan, they will become ineligible. They have the opportunity to appeal.

Monitoring of Academic Progress

The academic progress of financial aid recipients is reviewed at the end of each term. Students will be notified of status changes by letter.

New Start

Iowa Lakes Community College offers a “New Start” program for students a) who change programs of study after receiving unsatisfactory grades in a previous program at Iowa Lakes Community College; or b) who re-enroll at the college in the same program after an absence of at least two years.

It allows the student to begin a new cumulative grade point average from the beginning of the re-enrollment or from the beginning of the new program. A change to a new program of study is defined as a change in declared major program, such as changing from arts and sciences to a vocational program, or changing from one vocational program to another vocational program.

A “New Start” means that all academic work completed prior to the designated “New Start” term will appear on the academic record but will not be considered for use in the cumulative grade point average.

The “New Start” is a one-time only option. If a student experiences difficulty in the new program, the student may not apply for a second “New Start”. No grades are removed from the transcript by this program. Passing grades of ‘C’ or better earned prior to the “New Start” for courses which apply to the new program may be used in meeting graduation requirements but will not be calculated in the student’s cumulative grade point average.

Since this program applies to Iowa Lakes Community College only, it will generally not affect decisions made by transfer institutions or grantors of financial aid. Such agencies will likely consider the student’s complete academic record, not just the “New Start”.

A “New Start” petition must be filed in the Records Office before or during the first term of enrollment in the new program, or after the return to a former program following the required absence. The petition for a “New Start” will be reviewed by the Records Office and will be implemented if the student has met all the guidelines. The student may appeal the denial of a “New Start” petition to the Academic Review Committee as provided by the academic appeal procedures listed in the student handbook. Once granted, the “New Start” may not be rescinded.

ACADEMIC SUPPORT PROGRAMS

Advisors

Advisors who teach in the students’ major area of interest help to guide academic programs and achieve educational goals. Students are encouraged to visit advisors.

Libraries

The mission of the campus libraries is to support the educational programs of the college. The libraries are comprehensive centers designed to meet the diverse needs of students, faculty, staff and area residents.

Developmental Studies

As an open door institution, Iowa Lakes Community College recognizes that some students may need assistance in basic skills areas. New students are assessed in English, reading and mathematics. Students who have been underprepared or who have been out of school for several years may need to review and sharpen basic skills prior to entering required college courses.

Developmental studies classes are designed to allow students to succeed in the programs they choose. These courses, however, do add an extra load to student requirements and may extend the program of study and/or require attendance at summer sessions. Questions concerning developmental studies should be discussed with advisors, Success Center instructors or deans.

TRO-SSS

A federally funded student support service program is available at Iowa Lakes. This program targets first generation, income eligible and disabled students. Services focus on increasing student success in college, including tutoring, college visits for transfer students, counseling and academic advising, plus general support.

Tutoring

Peer tutoring is available to all students on request through the Success Centers.

STUDENT ASSISTANCE SERVICES

College Counseling Services

The Iowa Lakes Community College Counseling Program is focused on assisting students with strategies for academic success and retention. Educational Counselors specialize in student development through proactive programs focusing on personal/social
development, transfer planning, academic development, and career development.

Student Handbook
The student handbook helps students to become informed about the programs and services available at the college. A calendar and more detailed information about student life and college procedures are provided in a handy guide which is usually distributed during the orientation period at the beginning of the term.

Veterans’ Services
Services to veterans of the U.S. armed services are provided through the financial aid office. Qualified veterans are eligible to receive educational benefits in approved programs in all areas.

Students with Disabilities
Accommodations are provided based on student need. Services such as tutoring, counseling, note taking, readers and special equipment can be provided. All services are based on requests for services and appropriate documentation provided by the student. For more information, contact Jody Condon at 712-852-5219 or jcondon@iowalakes.edu.

Rehabilitation Services
An office of the state Department of Vocational Rehabilitation Service is available on campus in Emmetsburg and Estherville to assist clients of the program.

Student Housing
Housing at Iowa Lakes includes on campus units in Emmetsburg, Estherville and Spencer. For information about housing, contact the director/coordinator of housing at Emmetsburg, Estherville or Spencer campus. All students residing in college housing are required to participate in sessions pertaining to group living skills. To live in campus housing, students must be a full-time Iowa Lakes student enrolled in 12 or more hours. Please refer to the housing handbook to review housing procedures.

Off-campus housing information is available on the college Website at www.iowalakes.edu. Click on Student Life and Services, and then select Off-Campus Housing. Campuses in Emmetsburg, Estherville and Spencer also offer bulletin boards for posting of information for off-campus housing.

Student Centers
The student centers at Emmetsburg, Estherville and Spencer are the social, cultural and recreational hubs of the college. A cyber café, meeting rooms, television and game areas are provided. Student areas are available at Algona, and Spirit Lake.

The student centers offer a wide variety of food services ranging from cafe service and cafeteria meals to catered meals for dinners. Breakfast, noon and evening meals are served Monday through Friday in Emmetsburg and Estherville.

Campus Housing and Food Service Refunds
Students living in campus housing units who withdraw from college, who are asked to withdraw from college, or who move out of student housing for any reason still contractually owe rent for the remainder of the academic year. If students wish to terminate their contract prior to the start of the second semester will be held to the charge for the fall semester and there will be a termination charge of $600. The will be a credit for the unused food plan, minus one week. Termination of this contract after classes begin for the spring semester will result in full charge for the semester for room and credit for unused food plan, less one week.

During the regular terms, three meals per day are served in Estherville and Emmetsburg and two meals per day in Spencer, with the availability of weekend meal for students living in Estherville. Meal cards may be purchased by those students without a meal contract.

These procedures may be appealed if extenuating circumstances occur; see the student handbook or the housing director for more information. Any refunds that occur will be applied to outstanding balances with the balance being given to the student.

College Stores
College bookstores are located in Emmetsburg, Estherville and Spencer. Hours for Emmetsburg and Estherville are Monday – Thursday 8:00-4:30; Friday 7:30-4:00 summer hours are posted. Hours in Spencer are Monday – Thursday 8:00-1:00 summer hours are posted.

Students are asked to bring their registration form to assist with the purchase of books. Instructors select required textbooks. New book prices are determined by publisher prices.

Payment is due at time of purchase. If a voucher is approved by Financial Aid, the voucher is accepted at the bookstore for a specific time only. Returns are accepted only with an add/drop slip, then only for the first week of classes. Books with shrink-wrap cannot be returned if removed from wrap. If the book contains a CD, DVD or access code, please do not break the seal since copyright laws do not allow the bookstore to make a refund. Buy back days are the last five days of each semester and the last day of each summer session. All supplemental materials must be included with books when they are returned.

The bookstores also sell supplies and college-identified items.

Parking
Ample parking is available at Iowa Lakes Community College. Parking for the handicapped is provided. Parking signs and regulations are enforced and tickets are issued for parking violations. Vehicles parked in restricted areas or in other than designated stalls may be towed at the owner’s/driver’s expense.

Health & Accident Insurance
Iowa Lakes Community College does not purchase or carry health and/or accident insurance on students. Information on purchasing a health and/or accident insurance policy from a private vendor is available in the campus business office. Iowa Lakes Community College nor its employees or representatives will be responsible for medical bills if/when they advise a student to seek medical attention for an illness or injury.

Iowa Lakes Community College does not carry insurance to cover the theft of a student’s personal property. Therefore, neither Iowa Lakes Community College nor its employees or representatives will be responsible for the loss of student personal property by theft, fire, or any other means. Students are encouraged to obtain insurance for their personal property from their private insurance agency.

Job Placement
Instructors/coordinators of programs assist graduates in finding full-time jobs on completion of their programs. The financial aid office coordinates information concerning part-time jobs on campus for qualified students while they are attending Iowa Lakes.

Follow Up
The college conducts follow-up studies of graduates in order to ensure that instructional programs and courses are relevant to student needs and that students are adequately prepared for further educational study or entry into the world of work.
FINANCIAL AID

The purpose of financial aid is to assist students with the cost of education. All financial aid is awarded through the financial aid office. Students interested in financial aid must complete all admission requirements and complete the Free Application for Federal Student Aid (FAFSA) online at www.fafsa.ed.gov. Students are encouraged to file before April 1 of each year.

Pell Grant

A Federal Pell Grant, unlike a loan, does not have to be repaid. Pell Grants are only awarded to undergraduate students who have not earned a bachelor's or professional degree. For many students, Pell Grants provide a foundation of financial aid to which other aid may be added.

Federal Supplemental Educational Opportunity Grant (FSEOG)

A FSEOG is for undergraduates with exceptional need, that is, students with the lowest Expected Family Contributions (EFC), and gives priority to students who receive Federal Pell Grants. FSEOG does not have to be paid back.

Federal Loans

A Subsidized Loan is awarded on the basis of financial need. If you qualify for a subsidized loan, the federal government pays interest on the loan (“subsidizes” the loan) until you begin repayment and during the authorized periods of deferment thereafter. An Unsubsidized Loan is not awarded on the basis of need. If you qualify for an unsubsidized loan, you will be charged interest from the time the loan is disbursed until it is paid in full. You can choose to pay the interest or allow it to accumulate. If you allow the interest to accumulate it will be capitalized, that is the interest will add to the principal amount of your loan and will increase the amount you have to repay. If you pay the interest as it accumulates, you will repay less in the long run.

Alternative Loans

Alternative Loan Programs are education funding opportunities that partner with students, colleges, and educational funding organizations such as banks to provide private loans to students and families who do not qualify for adequate amounts of state and federal student aid. Loan funds must be used for educational expenses (tuition, room, board, computer, etc.) or as determined by the school. See the financial aid office for information and/or counseling on whether Alternative Loans are the best option to fulfill your financial aid needs.

Parent Loan for Undergraduate Students (PLUS)

Parents may borrow for dependent undergraduate, graduate or professional students up to a maximum which equals the cost of the student's program each year.

Work-Study

The work-study program provides jobs for students with financial need to earn money to help pay education expenses. The program encourages community service work related to your course of study.

Iowa Vocational-Technical Tuition Grant (IVTG) & Kibbie Grant

Need-based grants are available to Iowa residents who are vocational, technical and career option students at the area community colleges.

Other Financial Aid

Assistance to students needing help in financing education is also provided through veterans' services, vocational rehabilitation, Job Service and the Iowa National Guard.

Scholarships

Over 150 scholarships are available at Iowa Lakes Community College. The process is entirely online. Access the application from the Alumni & Foundation web page. Students and prospective student completed applications are included in various scholarships according to question responses. Recommendations are ONLY accepted online, through the student application. During the 2013-2014 academic year, $951,581 in scholarships was awarded. 77% of the students who submitted completed applications received at least one scholarship.

Presidential Scholar Honors Program

This program is an academic challenge structured for talented students. Freshman applicants recognized as honor students in high school, and returning sophomore honor students who have a cumulative average of 3.50 or above are invited to be members of the Presidential Honors Program.

Awards range from 60 percent to 100 percent tuition, depending upon qualifications. Members gather periodically to take part in cultural, intellectual, and aesthetic activities. They can qualify for Presidential Scholars recognition at commencement exercises.

STUDENT LIFE

The Iowa Lakes Community College experience is not by any means restricted to the classroom. Students participate in many co-curricular activities that are very much a part of their learning and growth. Since many of these activities, such as athletics and music, have headquarters at the Estherville campus, transportation is provided from other campuses when needed.

Athletics

The athletics program at Iowa Lakes Community College is an integral part of the total educational program. The program promotes physical growth and fitness, provides organized intercollegiate sports competition for student participation and community involvement, and allows a competitive feeling of achievement through sports participation. Intercollegiate athletics operate through the Estherville campus for students at any campus. Intramural athletics provide organized competition, individual tournaments and outdoor recreation for all students. Opportunities for fun, enjoyment and fellowship through participation in sports activities are sponsored at both Emmetsburg and Estherville.

Music

Iowa Lakes has numerous vocal and instrumental ensembles as well as recitals and coffeehouses to provide students with extensive solo or group performance opportunities. The music organizations in which students may participate are concert band, concert choir, jazz band, jazz singers, hand bell choir, men's choir, women's choir, woodwind ensemble, brass ensemble, and percussion ensemble. Opportunities for private lessons on piano, guitar, voice and many other instruments are available. Lessons are taught by highly qualified faculty. Lessons are open to all students and community members contingent upon the availability of faculty. The college also sponsors invitational jazz band contests, swing choir/jazz choir festivals and jazz band clinics which feature nationally known clinicians.

Student Organizations

The college encourages students to be active in college clubs and organizations. More than 30 student organizations reflect the wide range of student interest in pre-professional, social and special interest groups. A variety of clubs and organizations are available for student participation.
Student Senate
Through the student senate, students are provided an opportunity to participate in the operations of the college, both academically and socially. The senate’s objectives include providing a comprehensive activities program; addressing issues brought to it by students; encouraging the interaction and cooperation of students; and providing leadership in issues of citizenship and student rights.

STUDENT RIGHTS AND RESPONSIBILITIES
Academic institutions exist for the transmission of knowledge, the pursuit of truth, the development of students and the general well-being of society. Free inquiry and free expression are indispensable to the attainment of these goals.

Freedom to teach and freedom to learn are inseparable facets of academic freedom. The freedom to learn depends upon appropriate opportunities and conditions in the classroom, on the campus and in the larger community. Students should expect to exercise their freedom with responsibility. Those rights and responsibilities are published in the Student Handbook along with due process procedures for disciplinary actions.

Drug Prevention Program
Iowa Lakes complies with the Drug Free Schools and Communities Act of 1989 (PL 101 226) and provides a drug free institution that prohibits employees and students from unlawfully manufacturing, distributing, dispensing, possessing or using a controlled substance on its property or during any of its activities. Details on standards of conduct, legal sanctions, health risks and referral agencies are published in the Student Handbook or are available from campus business offices.

Crime Prevention on Campus and Completion/Graduation Rates:
The Student Right to Know and Campus Security Act of 1990 (PL 101-542), require colleges to collect, publish and distribute certain information concerning policies and procedures, including statistics relating to campus security and criminal actions on campus. This information is provided to all current students and employees in the Student Handbook and to applicants for admission or employment on request.

Additionally, the law (as amended by PL 102-26) requires colleges to report their completion/graduation rates on an annual basis, as well as specific information concerning athletes. This information is also published in the Student Handbook.

Institutional Record of Student Complaints
To comply with federal regulations, the college maintains records of formal, written student complaints filed with the offices of the chief executive officer, the chief academic officer, or the chief student services officer. These records will be maintained in the office of the dean of enrollment management.

The Academic Year
The academic year for college transfer and career option consists of two semesters, beginning in August or September and in January, plus a summer session. The academic year for vocational and technical students normally consists of two semesters plus a summer term. Continuing education programs are organized and scheduled to meet the needs and convenience of those requesting the programs.

Unit of Credit
The unit of college credit is the semester hour. A semester hour of credit is normally given for a minimum of one academic hour of classroom work for each week of the semester, two hours of scheduled laboratory work, three hours of scheduled clinical practice, or four academic hours of scheduled work experience, or the equivalent.

Classification of Credit Students
Freshman: a student who has completed fewer than 30 semester credits.
Sophomore: a student who has completed 30 or more semester credits.
Full-time: a student carrying 12 or more credits of college work in a regular term. Veterans must carry 12 or more hours to qualify for full educational benefits.
Half-time: a student carrying six or more credits of college work in a regular term.

CREDIT LOADS
Fall/Spring Terms
A liberal arts student may register for up to 19 credits if the previous term’s GPA was 2.50 or better; up to 21 credits if the last term’s GPA was 3.50 or better. A student is limited to 18 credits or less if the previous term’s GPA was between 1.50 and 1.99 and limited to 12-14 credits or less if the previous term’s GPA was less than 1.50. A liberal arts student on strict probation will be restricted to 12-14 credits. Students in vocational or technical programs may take the amount of credit required for the program each term.

Summer Term
A student may register for up to 12 credits. For both first and second session courses a student may register for up to 6 credits.

A student may appeal the credit load restriction by preparing a written petition stating the reasons for the proposed exception, securing the signed consent of the faculty advisor and presenting the petition to the director of records and registration at least three days before the last day to add a course in a term.
Grading System
Grades are based on students’ levels of achievement in those courses in which they enroll. The following scale is used:

Grades for courses with attempted credits which count toward the grade point average:

- A 4 honor points
- B 3
- C 2
- D 1
- F 0

Grades for courses with no attempted credits which do not count toward the grade point average:

- P pass
- Q not passing: a failing grade which earns no credit; can be issued only when a course is taken on a pass/no credit basis. Does not count as attempted credit.
- T credit for testing. Does not count as attempted credit.
- L credit granted by virtue of prior education or occupational experience. Does not count as attempted credit.
- X only the last grade (ABCDF) will count for GPA and credit. The previous grade is replaced with an “X” to indicate it is a repeat and no longer counts for GPA and credit.

Other grade symbols which earn no credits or honor points:

- I incomplete: assigned in cases where the student has not completed some portion of assigned course work during a regular term for extenuating circumstances such as illness family emergency, etc. A change of grade will be accepted up to the end of the next term following the term in which the grade is issued.
- W withdrawn: course formally dropped after the end of the first week of a term. Students who would like grades mailed must make that request to the Records Office each academic term. The college may also send grades for Postsecondary Enrollment Option students to the high school.
- N audit: course taken for personal interest only; does not earn credits or grade. Must be elected during the first two weeks of a term.
- P pass: course has been elected to be taken on a pass/no credit basis during the first two weeks in a term. Only one course may be so elected each term, except that all courses designated as developmental may be elected as pass/no credit. In addition, some courses are offered only on a pass/no credit basis. No more than one-fourth of the total credits required for graduation may be earned with P grades. A course which is being repeated may not be elected on a pass/no credit basis. Does not count as attempted credit.

Mid-term temporary grades are distributed to students through advisors and the online portal system at the middle of each regular semester. Final grades are available to students through the portal at www.iowalakes.edu. Students who plan to participate in one of the annual commencement ceremonies must indicate their intent on the application for graduation. There is no graduation fee. Participation in commencement ceremonies is free of charge.

Graduation
Candidates for graduation must complete an application for graduation in order to receive their diploma. Students who do not complete requirements for graduation in the term for which they applied must submit a new application. Students who plan to participate in one of the annual commencement ceremonies must indicate their intent on the application for graduation. There is no graduation fee. Students who plan to receive more than one degree, diploma or certificate need to complete a graduation application for each program. The graduation application is available online at https://www.iowalakes.edu/registrar/graduation_application.htm

The graduation application should be completed by the following dates:

- Fall: October 1
- Spring: February 1
- Summer: June 1

Commencement ceremonies are held at the end of the spring and summer terms. Students who graduate at the end of fall are invited to participate in the annual commencement ceremony in May. Participation in commencement ceremonies is free of charge.

DEGREES, DIPLOMAS AND CERTIFICATES
Iowa Lakes Community College awards degrees, diplomas, and certificates to those individuals who successfully complete programs in arts and science, career option, vocational, technical or continuing education areas. The following degrees are awarded for college credit two-year programs: Associate of Arts, Associate in Science, and Associate in Applied Science. Diplomas are awarded for college credit vocational and technical programs of less than two years duration.

To be eligible for a degree or diploma in a credit program, a student must complete the last 15 credits before graduation in courses taken at Iowa Lakes. Certificates are issued to students who complete program requirements.
The General Education Core

General education is intended to provide breadth of learning to the community college experience. General education imparts common knowledge, promotes intellectual inquiry and stimulates the examination of different perspectives, thus enabling people to function effectively in a complex and changing world.

General education is not exclusively related to a student’s technical, vocational or professional field but is a part of a degree or diploma that prepares all students to meet personal, social and lifelong learning needs.

At Iowa Lakes Community College, general education encompasses curricular patterns and/or cognitive experiences appropriate to the length and content of the prescribed program. The general education requirements include college-level experiences which develop student capabilities in, and understanding of, (a) oral and written communication; (b) critical thinking; (c) numerical data; (d) scientific inquiry; (e) ethical, global, historical and social issues; and (f) appreciation for the fine arts.

The general education component at Iowa Lakes is developed at the institutional level through the faculty governance structure, using criteria appropriate to the institution’s mission, state guidelines and requirements of applicable accrediting bodies. Iowa Lakes Community College will continually clarify, articulate, publicize and assess its general education program. The general education requirement varies in accordance with the specific degree or diploma program in which the student enrolls.

Associate in Arts Transfer Degree

Requirements

The Associate in Arts degree is designed to provide the first two years of a typical college or university bachelor’s degree program in liberal arts, general education, or pre-professional studies. Completion of the degree will satisfy all of the general requirements at several area colleges and universities and many of the requirements at other schools. To earn the Associate in Arts transfer degree, a student must:

- Earn a minimum of 64 semester credits, of which not more than 16 may be vocational or technical credits used as general electives and which may not be developmental education credits.
- Earn a minimum cumulative grade point average (GPA) of 2.00 or higher, using Iowa Lakes grade points earned divided by Iowa Lakes credits attempted for a standard letter grade, as defined elsewhere in this catalog.
- Complete the following general requirements, totaling 40 or more semester credits:

Communications (10 semester credits):
- ENG-105 Composition I 3
- ENG-106 Composition II 3
- SDV-103 Successful Learning 1
- SPC-101 Fundamentals of Oral Communication... or SPC-112 Public Speaking ......................... or SPC-122 Interpersonal Communications .......... 3

Science (8 or more semester credits)
- BIO-102/105 Introductory Biology 3,4
- BIO-112 General Biology I 4
- BIO-113 General Biology II 4
- BIO-141 Ecology & Environmental Concepts 4
- BIO-163 Essentials of Human Anatomy & Physiology 4
- BIO-168/173 Human Anatomy & Physiology I/II 4
- BIO-186 Microbiology 4
- BIO-248 Introduction to Bioscience 4
- BIO-300 Field Biology & Lab 4
- CHM-151 College Chemistry I 4
- CHM-152 College Chemistry II 4
- CHM-166 General Chemistry I 5
- CHM-176 General Chemistry II 5
- CHM-190 Introduction to Forensic Chemistry 4
- EVS-114 Environmental Studies I 4
- EVS-124 Environmental Studies II 4
- PHS-113 Introduction to Physical Science 4
- PHS-166 Meteorology, Weather & Climate 4
- PHS-187 Introduction to Earth Science 4
- PHY-162/172 College Physics I/II 4
- PHY-212/222 Classical Physics I/II 5

Mathematics (5 or more semester credits)
- MAT-110 Math for Liberal Arts 3
- MAT-120 College Algebra 3
- MAT-127 College Algebra & Trigonometry 5
- MAT-130 Trigonometry 3
- MAT-140 Finite Math 3
- MAT-156/157 Statistics OR BUS-211/212 Business Statistics 3,4
- MAT-210/211 Calculus I 4,5
- MAT-217 Calculus II 5
- MAT-218 Calculus III 3
- MAT-225 Differential Equations 3

(Some transfer colleges have higher minimum requirements, such as MAT-127)

Social Science (9 semester credits from two or more areas)
- HIS-110/111 Western Civilization * 3
- HIS-285 Classical Heritage * 3
- HIS-151/152 U.S. History 3
- PSY-111 Intro to Psychology 3
- PSY-121 Developmental Psych. 3
- PSY-211 Psychology of Adjustment 3
- PSY-241 Abnormal Psychology 3
- PSY-251 Social Psychology 3
- ECN-120 Principles of Macroeconomics 3
- ECN-130 Principles of Microeconomics 3
- SOC-100 Introduction to Sociology 3
- SOC-115 Social Problems 3
- POL-111 American National Government 3
- POL-112 American State & Local Government 3
- GEO-121 World Regional Geography 3

II ANT-105 Cultural Anthropology 3
- HIS-201 Iowa History 3
- MMS-101 Mass Media * 3
- POL-110 Introduction to Political Science 3
- SOC-120 Marriage and Family 3
- SOC-186 Contemporary Global Issues * 3
- SOC-200 Minority Group Relations 3

Humanities (9 semester credits from two or more areas)
- DRA-101 Introduction to Theatre 3
- EDU-235 Children’s Literature 3
- LIT-101 Introduction to Literature 3
- LIT-110/111 American Literature 3
- LIT-124 American Poetry 3
- LIT-150/151 World Literature. I/II 3
- LIT-161 The Short Story 3
- LIT-184 Young Adult Literature 3
- MUS-100 Music Appreciation 3
- MUS-202 World Music 3
MUS-203 History of American Music 3
MUS-205 Jazz History & Appreciation. 3

III ART-101 Art Appreciation 3
ART-206 Art History 3

IV HIS-285 Classical Heritage 3
PHI-101 Introduction to Philosophy 3
PHI-105 Introduction to Ethics 3
PHI-114 Critical Thinking 3
PHI-128 Philosophy of Religion 3
PHI-903 History of Philosophy-Travel Tour 3
REL-101 Survey of World Religions 3

V FL -XXX (any Foreign Language) 3

VI HIS-110/111 Western Civilization. 3
MMS-101 Mass Media 3
SOC-186 Contemporary Global Issues 3

*Use credits for Social Science or Humanities requirements, not for both.

Computers (3 semester credits)
CSC-110 Intro to Computers ..............................................3
BCA-212 Intro to Comp Apps in Business .........................3
BCA-218 Advanced Microsoft Office Apps ..........................3

PLUS ELECTIVES TO TOTAL 64 SEMESTER CREDITS:
May include up to 16 vocational/technical credits; do not include developmental courses or special needs courses.

The Collegiate Assessment of Academic Proficiency (CAAP) will be used to assess the writing and mathematics skills of all students enrolled in the Associate in Arts curriculum. The assessment will be administered when the earned and currently enrolled credit of the student totals 60 or more semester credits. The student will not be charged the cost of assessment.

Associate in Science General Education

Degree Requirements for Career Programs

An Associate in Science degree with a designated specialty is awarded to a student who successfully completes a career option program. In addition to the course requirements in the specialty area, the following general requirements must be fulfilled:

- Earn a minimum of 68 semester credits, of which not more than 16 credits may be vocational or technical credits used as general electives and which may not be developmental studies credits.
- Earn a cumulative grade point average of 2.00 or higher.
- Complete the requirements of the career option specialty.
- Complete the following 25 semester credits of general education requirements:

Communications (6 semester credits)
ENG-105 Composition I 3
SPC-101 Fundamentals of Oral Communication 3

Science (4 semester credits)
(Select from AA degree science courses) 4

Mathematics (3 semester credits)
(Select from AA degree math courses) 3

Social Science (6 semester credits from two areas):
(Select from AA degree social sciences) 3-3

Humanities (3 semester credits):
(Select from AA degree humanities courses) 3

Business (3 semester credits from business department or a computer course) 3

Associate in Applied Science Degree

Requirements

The Associate in Applied Science degree is awarded to students who complete two-year technology curricula. Each program has specific course requirements; all programs require a 2.00 or better GPA for graduation. Some arts and science courses may apply to AAS degree requirements in specific programs. Credits earned toward an Associate in Applied Science degree may be transferable to some baccalaureate degree granting institutions, but only at the option of those institutions.

Minimum program requirements total at least 68 semester credits and general requirements include a writing course and an oral communications course or a course combining both; a mathematics course and a related or applied science course; a social science course such as applied psychology or sociology or human relations; a related business or computer applications course.

Diploma Requirements

Diplomas are issued to students who complete full-time vocational curricula of at least one academic year but less than two years in length. Specific course requirements must be met and a 2.00 or better GPA is required.

Minimum requirements total at least 34 semester credits and general requirements include a minimum of one writing course and an oral communications course or a course combining both; an applied mathematics or applied science course; and a human relations course.
Certificate Requirements

Students enrolled in adult vocational or adult general education courses receive certificates signifying satisfactory completion of the program of instruction. Students must attend at least 70 percent of the class sessions and complete the course work according to the instructor’s standards.

Iowa High School Equivalency Certificate Requirements

The Iowa Department of Education will issue a High School Equivalency Diploma (HSED) to any student who passes the required battery of HiSET™ (High School Equivalency Test) tests in the following five areas: Language Arts-Reading, Language Arts-Writing, Mathematics, Science, and Social Studies. Once ready for Official HiSET™ Testing, students must meet three HiSET™ criteria to complete the requirements for their equivalency diploma; Score 8 out of 20 on each of the five subtests, Score at least 2 out of 6 on the writing essay, and Achieve a total scaled score on all five HiSET™ subtests of at least 45 out of 100.

Prior to Official HiSET™ testing for their diploma, students are required to complete an Adult Education & Literacy Program (AEL) registration, a pre-test assessment, attend at least one explicit instruction course, attend at least 70 hours of instruction, complete a post-test assessment, and meet the requirements for Official Practice Tests. Without exception, all must be completed prior to any diploma testing. Instruction in the Iowa Lakes’ AEL Program is FREE, and students are allowed to receive as many hours of instruction as necessary to prepare them for HiSET™ testing. Additionally, students cannot be enrolled in any high school to be in the AEL Program at Iowa Lakes. Students may begin the program at 16 but cannot begin testing until they are 17 and will not receive their official diploma until May of the year they would have graduated from high school.

**In 2014, the State of Iowa switched from using the well-known GED® testing service to now using HiSET™. The equivalency diploma is the same credential issued from the Iowa Department of Education.**

Further information is available from the two Iowa Lakes Community College Testing Centers or through any of the five Success Centers.

PROCEDURES FOR ACADEMIC CLASSES

Registration

Registration consists of program planning, scheduling of classes through consultation with an advisor, and paying tuition and fees to the college. New students who are enrolling for the first time in the fall are invited to attend an orientation-registration program in the summer. Preregistration is scheduled prior to the beginning of each term. Regular registration dates and the last date to register are published each term. A current permanent email and/or mailing address must be on file as part of registration and must be kept up to date. Information sent to the address on file will be considered to be proper notification to the student. Registration for courses may also be completed online.

Change of Registration

A “change of registration” form must be completed and submitted to the business office to make any change in registration. Courses may be added during the first two weeks of a session; after the first week, the instructor and director of records and registration must approve. Courses may be dropped at any time prior to the last four weeks of a course in a regular length term. Dates are pro-rated for shorter terms.

Withdrawing from All Classes

Please refer to the class schedule booklet for specific dates. It is the student’s responsibility to initiate a formal drop. After the first week of classes, a “W” grade will be assigned for each course. Students who receive financial aid must complete a financial aid exit interview, and may be responsible for repaying financial aid proceeds. (See Refund of Tuition – Federal Financial Aid/Title IV Funds.)

The date the institution determines that the student withdrew varies depending on the type of withdrawal. For example, if a student initiates the “official withdrawal” process or provides notification to the institution of their intent to withdraw, the date the institution determines that the student withdrew would be the date the student began the official withdrawal process, or the date the student notified the institution, whichever is first. If a student did not begin the official withdrawal process or provide notification of his or her intent to withdraw, an “unofficial withdrawal” occurs and the institution establishes the withdrawal date as either the midpoint of the semester or the last date of attendance at an academically-related activity.

If a student earns a passing grade in one or more of their classes, an institution is permitted to make the presumption that the student completed the course requirements and may consider the student to have completed the period.

If a student fails to earn a passing grade in at least one class the student is enrolled, the withdrawal date is either the midpoint of the semester or the last date of attendance at an academically-related activity. In addition, a student who unofficially withdraws and receives failed grades (Fs) recorded on their academic transcript, may be ineligible for financial aid.

Refund of Tuition

Refund of Tuition (When there is NO Federal Financial Aid Resources): In the event a student withdraws from a course, the student will receive a refund based on the dates of the courses enrolled. Refunds are calculated on the total tuition paid. If a student received Federal Financial Aid, please read the next section. (Please refer to the class schedule book for specific dates.)

Refund Schedule

<table>
<thead>
<tr>
<th>Normal/full-length semester classes</th>
<th>100% tuition refund</th>
</tr>
</thead>
<tbody>
<tr>
<td>First ten class days of semester</td>
<td>100% tuition refund</td>
</tr>
<tr>
<td>After day 10</td>
<td>No refund</td>
</tr>
<tr>
<td>8 week classes</td>
<td>100% tuition refund</td>
</tr>
<tr>
<td>First five days of class</td>
<td>No refund</td>
</tr>
<tr>
<td>After day 5</td>
<td></td>
</tr>
<tr>
<td>Less than 8 weeks</td>
<td>100% tuition refund</td>
</tr>
<tr>
<td>First day of class</td>
<td>No refund</td>
</tr>
<tr>
<td>After day 1</td>
<td></td>
</tr>
</tbody>
</table>

ECollege/online courses, Ed2Go/Gatlin Education and other special course schedules differ; beginning dates and refund dates vary. Compressed course drops are cancelled with refund only before second class meeting starts. A student who registers but later is unable to attend must notify the college before the last date to cancel the course(s) or program to avoid charges and/or grades. Some exceptions may apply.

Refund of Tuition (Federal Financial Aid/Title IV Funds): Refunds of tuition will be calculated based on the refund policy. The student’s account balance may be affected by the financial aid adjustment that occurs after the Return to Title IV calculation. “Return to Title IV Funds” (Federal Financial Aid) formula dictates the amount of Federal Financial Aid that must be returned to the government by the student. This formula is applicable to any student receiving any type of federal aid other than Federal Work Study if that student withdraws before the 60% completion point of the semester. If funds are released to a student or their account,
the student may be required to repay some of the federal grants and loans. Generally the law states (section 485 of the Higher Education Amendments of 1998—P.L./105-244) that the amount of assistance the student has received is determined on a prorated basis, in relationship to the specific term and the amount of the term completed. Students can calculate their liability by logging on to www.214.com and selecting the "continue" button. Students need to contact the Financial Aid Office for an exit interview and to verify the accuracy of their calculation. (See "Withdrawing from College" for related information.)

Important: Iowa Lakes Community College reserves the right to change the Refund Schedule at any time.

Credit Assignment in Emergency Situations

Upon request of the student and after the two-thirds point of a term, the student may be given grades and credit for all courses in progress at the time of a personal emergency such as serious personal or family illness or injury requiring the student to discontinue studies, a death in the immediate family, or other circumstances that preclude a student finishing the term. The instructor of each course and a dean must approve the grade and credit.

Options in Credit and Grading

A change from credit to audit or audit to credit status may be made during the first two weeks of a term if the permission of the director of records and registration is granted. A change from traditional to pass/no credit (P/Q) grading may also be made during the first two weeks of a term if the instructor and director of records and registration approve. Some restrictions apply; see the section on "grading system." A shorter option period applies for shorter terms.

Tuition and Fees

Students are encouraged to make full payment of tuition and fees by the first day of classes each term. Debits cards, VISA, MasterCard and Discover credit cards are accepted for payment of tuition, fees and bookstore charges. You may also provide information for automatic withdrawals from your checking/savings accounts. For those for whom full payment is not possible, a deferred payment plan is available. Textbook charges and aviation flight fees may not be deferred.

If a payment for tuition and fees is not received by the college by the due date, the college may drop the student from all classes by the due date, the college may drop the student from all classes.

Transfer of Credit and Other Ways of Earning Credit

Iowa Lakes will accept credit from other institutions of higher education and will grant credit for other forms of extra institutional learning if such credit is determined to be generally equivalent to the credit awarded for work in residence at Iowa Lakes, can be documented in an appropriate manner, and applies to the student’s program of study and toward his or her educational goals.

One of the other methods includes test out, such as the College Level Examination Program (CLEP).

Credit accepted at Iowa Lakes in transfer will not necessarily transfer to another institution in the same manner because most colleges evaluate transfer credit themselves. In addition, credit granted at Iowa Lakes for test out, experiential learning, or other non-traditional forms of instruction may transfer if it qualifies under the policies and procedures for granting such credit at the receiving institution.

Working closely with an advisor and any college or university to which a student wishes to transfer will be important to the planning process. Students are responsible for taking the courses they need to meet their graduation and transfer requirements, but advisors can help smooth the process.

Additional information is available from a counselor’s office, the Success Center, the records office, and from executive deans or advisors.

Inter-Institutional Transfer of Credit

Iowa Lakes will accept credit transferred from other regionally accredited institutions of higher education provided that an official transcript is received directly from the institution, the grades are satisfactory, and that the courses apply toward the student’s field of study. A grade of ‘C’ or better, or its equivalent, is considered to be satisfactory.

Credit for Military Service

Credit may be granted for military experience in the following instances:

- two credits in physical education for a year or more of active duty.
- credit for DANTES or USAFI courses with acceptable scores or grades.
- service school courses
- military specialties (MOS, NER, etc.)

A recommendation of the American Council on Education is one of the methods used in determining possible credit for military experience. Applicability to the student’s program of study is also considered.

Credit for Extra-institutional and Experiential Learning

Iowa Lakes may grant credit for formally structured courses offered by non-collegiate sponsors such as businesses, corporations, governmental agencies, unions and professional groups. College credit recommendations published by the National Program on Non-collegiate Sponsored Instruction (through the Regents of the State University of New York) and The National Guide to Educational Credit for Training Programs (through the American Council on Education) are used as guidelines for the awarding of credit.

Credit may be granted to an Iowa Lakes student for learning gained through work experience or personal study, if the student can document that this learning meets the competencies of the course for which credit is requested. Credit may be awarded only for a course listed in the current college catalog.

- The student, upon recommendation of the instructor and advisor, presents a written proposal to an instructor responsible for teaching the course in question, requesting credit for that course. Supporting materials must accompany that request, including a complete description of the prior learning, supervisory verification if available and a description of the competencies achieved.
- If the instructor evaluates the proposal as having merit,
the instructor will present the proposal to an Executive Dean or the dean’s designee for permission for the student to contract for the course credit.

- The student and instructor will develop a performance contract to document competency in the course objectives, define a time line for completion and the student will pay the appropriate charges.
- Instructor verification that the student is to receive credit for the course is submitted to the director of records and registration and a grade of ‘L’ is recorded on the academic record.

Credit by Examination
Credit may be earned by examination at Iowa Lakes through the following methods:
- The ACT PREP examinations
- selected DANTES examinations
- “challenge” examinations for specific Iowa Lakes courses which are developed and graded by the appropriate academic department.

Certain requirements must be met and Iowa Lakes specifies acceptable scores for each examination. For further information, contact the testing personnel at one of the Iowa Lakes Success Centers.
- The College Level Examination Program (CLEP) for general and certain subject examinations.
- All students are encouraged to contact the testing personnel to determine eligibility before military experience credit or credit by examination will be posted on the permanent record. A maximum of 30 semester credits may be accepted for military experience, experiential learning, and credit by examination. Some forms of earning credit may incur Iowa Lakes fees and charges for test administration, evaluation, and/or posting. Some standardized tests require payment of examination fees as well.

Academic, Financial Aid and Residency

Informal: It is the desire of the college that any difficulties or confusion a student may encounter with the policies or regulations of the college be handled in an informal manner whenever possible. Students are encouraged to talk to their advisors, instructors, Director of Distance Education, or the campus dean to resolve issues as they arise. Questions about financial aid may be asked of the director of financial aid. Questions about academic requirements, policy or procedures may be asked of the registrar, who also handles changes of residency.

Formal: If a student feels that extenuating circumstances might justify the waiver of a particular college policy, application, procedure or regulation as interpreted by a college employee, an appeal may be made to the Academic Review Committee. The Academic Review Committee considers all initial appeals to waive the application of college policies and procedures concerning academic actions, financial aid or residency decisions. (Academic actions include, but are not limited to, academic probation or suspension, procedures, program or degree requirements, or grades allegedly given in error by faculty members.)

Appeal Procedure
A. A student initiates an appeal by making a written statement to the Academic Review Committee, delivered to the registrar. The appeal must be filed with the Records Office no later than 24 months from the end date of the semester in which the grievance occurred. The statement should provide a description of the problem as well as the desired solution, along with any supporting information the student believes will be helpful. The student may request written involvement by faculty members, advisors, or others in support of the case.

B. If the student is dissatisfied with the committee’s decision, a further appeal may then be made in person before the committee. The student may have others appear in support of the petition. If a personal appeal is not requested within thirty (30) days of the previous committee decision, that decision becomes final.

C. If a student has completed both the written and personal appeal processes above, the decision of the committee may be appealed to the campus dean. If the campus dean’s decision is consistent with the Academic Review Committee’s decision, the student may then appeal to the chief academic officer. If the student continues to be dissatisfied, he or she may appeal to the college president or designee, whose decision will be final. Failure to initiate this level of appeal within thirty (30) days of the notification of the committee’s action shall result in the committee’s last decision becoming final.

PRIVACY OF RECORDS

The Family Educational Rights and Privacy Act (FERPA) afford students certain rights with respect to their education records. They are:

1. The right to inspect and review the student’s education records within 45 days of the day the college receives a request for access. A student should submit to the director of records and registration/registrar or other appropriate official a written request that identifies the record(s) the student wishes to inspect. The registrar will make arrangements for access and notify the student of the time and place where the records may be inspected. If the records are not maintained by the registrar, the registrar shall advise the student of the correct official to whom the request should be addressed.

2. The right to request the amendment of the student’s education records that the student believes are inaccurate or misleading. A student may ask the college to amend a record that the student believes is inaccurate or misleading. The student should write to the college official responsible for the record, clearly identify the part of the record the student wants changed, and specify why it is inaccurate or misleading. (Note: FERPA was not intended to provide a process to be used to question substantive judgments which are correctly recorded. The rights of challenge are not intended to allow a student to contest, for example, a grade in a course because the student felt a higher grade should have been assigned.) If the college decides not to amend the record as requested by the student, the college will notify the student of the decision and advise the student of his or her right to a hearing regarding the request for amendment. Additional information regarding the hearing procedures will be provided to the student when notified of the right to a hearing.

3. The right to consent to disclosures of personally identifiable information contained in the student education records, except to the extent that FERPA authorizes disclosure without consent. One exception which permits disclosure without consent is disclosure to college officials with legitimate educational interests. A college official is a person employed by the college in an administrative, supervisory, academic or research, or support staff position (including law enforcement unit personnel and health staff, if any); a person or company with whom
the college has contracted (such as an attorney, auditor, or collection agent); a person serving on the college board of trustees, or a student serving on an official committee, such as a discipline or grievance committee, or assisting another college official in performing his or her tasks. A college official has a legitimate educational interest if the official needs to review an education record in order to fulfill his or her professional responsibility. Upon request, the college discloses education records without consent to another school in which the student seeks or intends to enroll.

4. The right to file a complaint with the U.S. Department of Education concerning alleged failures of Iowa Lakes Community College to comply with the requirements of FERPA. The name and address of the office that administers FERPA is: Family Policy Compliance Office, U.S. Department of Education, 400 Maryland Avenue, SW, Washington, DC 2000.

Directory Information

Iowa Lakes considers the following to be directory information and will release it unless the student requests the college not do so by the end of the second week of classes each term: name, addresses, telephone numbers, e-mail address, date and place of birth, major field of study, classification, participation in officially recognized activities and sports, weight and height of members of athletic teams, dates of attendance, degrees and awards received, academic honors awarded, and the most recent previous educational agency or institution attended.

Any request to limit directory information must be made to the director of records and registration. The college will notify a student of requests for directory information if the student has requested withholding it; Iowa Lakes will not be responsible if disclosure would have been to the student's benefit. Students not currently enrolled may not restrict directory information. Directory information is released only on an individual basis; lists of students are not available. A request to withhold any item of directory information will normally result in the college withholding all information.

Students' Right to Review

Students have the right to inspect and review information contained in their education records. A student must make a written request to the director of records and registration listing the item or items of interest. The college will respond to the request within 45 days. Further information about the content of the educational record and the right to challenge portions which the student feels are incorrect is available in the records and registration offices at Emmetsburg or Estherville.

Requests for Transcripts

A transcript of credit courses taken at Iowa Lakes Community College is issued to a third party only upon written request by the student. Forms for this purpose are available at all campuses as well as the college web site: www.iowalakes.edu. A signed letter is also acceptable and may be sent by mail or facsimile (FAX). Transcripts are normally sent out within a few days of the request; at the end of a term it takes longer to post grades and degrees on records. All transcripts are processed at the Estherville campus. Iowa Lakes Records, 300 South 18th St. Estherville, IA 51334. 712-362-7922 or FAX 712-362-8363.

There is no charge for transcripts sent by regular mail service. Same day, FAX, and similar special services incur charges. Contact the records office for the special service fees. Transcripts are not released if the student has an overdue financial obligation to the college.

TRANSFER TO OTHER INSTITUTIONS

Students who plan to transfer to another institution after the completion of their study at Iowa Lakes should plan early to meet the requirements of the institution to which they plan to transfer. Iowa Lakes advisors and counselors will help students meet their educational goals. Students are also urged to work closely with the school to which they will transfer to be sure that courses will transfer and that requirements will be met.

Students who plan to transfer to a four-year college should be aware that many schools have increased the level of mathematics competency required for graduation to the level of college algebra or higher. This requirement also applies to community college graduates with the A.A. degree, even though the A.A. degree may meet the four-year college general requirements.

Some colleges are now requiring a foreign language and some require that science courses also include laboratory work. Students who take college level work as high school students who use the credit for high school graduation requirements should be aware that some colleges will not also allow that credit to count toward a college degree.

Credit granted at Iowa Lakes for test-out, experiential learning or other non-traditional forms of instruction may transfer if it qualifies under the policies at the receiving institution. An official transcript of Iowa Lakes work should be sent to the transfer institution when the school asks for it.

MINNESOTA OFFICE OF HIGHER EDUCATION

Iowa Lakes Community College is registered as a private institution with the Minnesota Office of Higher Education pursuant to Minnesota Statutes, sections 136A.61 to 136A.71. Registration is not an endorsement of the institution. Credits earned at the institution may not transfer to all other institutions.

CONTINUING EDUCATION

Iowa Lakes Community College is aware that education is a lifelong activity and provides preparatory, upgrading and enriching continuing education courses for those residents who want, need, and can benefit from such training. A comprehensive schedule which provides area residents with the opportunity to participate in programs and activities meet their needs. Working directly with communities and area businesses, the division provides short courses, programs, and seminars in a timely manner.

Adult Basic Education

This program provides adults with a ‘second chance’ to learn and/or brush up on basic skills such as reading, writing, computation, and balancing a checking account. Classes are offered at various locations throughout the areas served by the college.

Vocational Supplemental Courses

Courses in this category are designed to increase the skills and understandings needed by adult workers who are already employed but want to upgrade or update their occupational competencies. The target population for these courses is the working adult.

Needs are identified by several methods. Individuals or groups may request a specific course which they need. Agencies, organizations, businesses and industries may make requests. Advisory committees also propose courses and programs, such as those for nursing or building maintenance supervisors. Licensing boards also assist in identifying needs.
COMMUNITY SERVICE AND SERVICE LEARNING

A community service program is designed to promote agricultural, business, industrial, recreational, cultural and social development. This includes providing leadership in solving community problems, serving new constituents, and making college facilities available.

Service learning at Iowa Lakes is a method of teaching and learning which engages students in solving problems and addressing local needs within the college or the community as part of their comprehensive educational program. Service learning combines academic curriculum with service in a college or community service project.

Iowa Lakes Community College is also involved in community service projects such as the Retired and Senior Volunteer Program (RSVP), the Small Business Development Center and health related programs.

ENGLISH AS A SECOND LANGUAGE

Designed to teach English to those people for whom it is not the primary language, this program has assisted migrant and refugee peoples who have moved into the area. Emphasis is on English for daily living and on-the-job language requirements.

EXTENDED LEARNING

Postsecondary Enrollment Options Act

Iowa Lakes Community College welcomes and encourages qualified high school students to enroll in college-level classes and looks forward to serving their needs. To facilitate the Postsecondary Enrollment Options Act, Iowa Lakes has established the following guidelines.

Students must complete and submit the following information before the semester in which they plan to enroll:

a) An official high school transcript
b) ASSET, COMPASS or ACT score
c) A signed Iowa Lakes High School registration form
   (available from high school counselor)

All high school registration forms require a high school administrator, parent and student signature or registration is considered incomplete. A new registration form must be completed for each semester.

Each student must take an ASSET, COMPASS or ACT test to enroll in an Iowa Lakes course. There is a minimum score that must be reached on the test in order to enroll in any writing or math course.

Students receiving low scores are encouraged to return to their local high school to upgrade their skills. If no means are available at the high school level to improve those skills, the student may enroll in an Iowa Lakes developmental class, but not regular college classes, until the required developmental courses have been completed satisfactorily.

Under the Postsecondary Enrollment Options Act, the local school district assumes responsibility for tuition. The law further requires the student or parent to reimburse the local district if he/she fails to complete the course or receive adequate credit.

The student is responsible for withdrawing officially if enrollment ceases during the term for any reason. Withdrawal and refund policies and procedures are detailed elsewhere in this catalog.

All information regarding PSEO classes is available through the high school guidance counselor.

Third Age College

The Third Age College is an educational organization that provides an academic setting to enrich the lives of individuals over the age of 55 and interested others. The term “third age” is borrowed from the French and indicates productivity during retirement rather than this “age” becoming the mere closure of life.

Classes meet in Algona, Emmetsburg, Estherville, Spencer and Spirit Lake and focus on academics rather than leisure and pleasure. A variety of topics and subject areas are covered in courses.
College Transfer &
Career Option Programs

COLLEGE TRANSFER
A student completing an Associate in Arts or Associate in Science Transfer degree will complete 39-44 credits of required subjects and 20-25 credits of electives. These requirements meet some or all of the general education requirements at many four-year colleges. Courses can be selected in major areas to meet pre-professional requirements.

CAREER OPTION PROGRAMS — Students previously enrolled in the programs listed below will receive an Associate in Science Career Option (ASCO) degree upon program completion; ASCO degrees will not be awarded after Spring 2016. Students who enroll in the programs listed below during or after the Fall 2014 semester will receive an Associate in Applied Science (AAS) degree upon program completion.

A number of career option programs are offered by the college. These unique programs allow the student the option of transferring to a four-year institution or going directly into employment. A student who completes the two-year program receives the Associate in Science degree. With the assistance of advisory committees, these programs are designed to ensure that students are adequately prepared to meet practical employment needs. The curriculum is composed of general education courses, specialty courses and related on-the-job training. Programs are available in the following areas.

Accounting Specialist
Administrative Assistant
Aviation/Airport Management
Broadcast Media Specialist
Business Administration and Management
Computer Programming
Criminal Justice
Early Childhood Education
Environmental Studies
Graphic Design and Technology
Human Services/Disability Studies
Journalism and Photography
Paralegal/Legal Studies
Sales and Marketing Management
Substance Abuse Counseling
Sustainable Energy Resource Management
Web Development & Design

Accounting Specialist
Associate in Science
Location: Emmetsburg, Estherville, Spencer, and Online

Required Courses Credits
ACC-131 Principles of Accounting I ........................................... 4
CSC-110 Introduction to Computers ........................................... 3
(can count as general requirement)
ACC-161 Payroll Accounting .................................................. 3
BUS-175 Business Seminar ..................................................... 1
ACC-132 Principles of Accounting II ....................................... 4
ACC-261 Income Tax Accounting ........................................... 3
ACC-310 Computerized Accounting ........................................
ACC-941 Practicum ................................................................. OR
ENG-106 Composition II ......................................................... 3
ACC-929 Individual Projects ................................................... 2
ACC-231 Intermediate Accounting I ........................................ 4
ACC-221 Cost Accounting ....................................................... 3
ECN-120 Principles of Macroeconomics ................................. 3
BUS-211 Business Statistics ................................................... 4
ACC-232 Intermediate Accounting II ................................. OR
ACC-702 Certified Bookkeeper Review .................................. 4
ECN-130 Principles of Microeconomics ................................ 3
BUS-115 Business Correspondence ........................................ 2
MGT-101 Principles of Management ....................................... OR
BUS-102 Introduction to Business ........................................... 3
Remaining AS general requirements and electives
Total Credits ........................................................................ 70

Administrative Assistant
Associate in Science
Location: Emmetsburg

Required Courses Credits
ACC-111 Intro to Accounting (3cr.)................................. OR
ACC-131 Principles of Accounting I ................................... 4
ADM-254 Business Professionalism .................................. 1
ADM-255 Business Professionalism II .......................... 1
ADM-132 Business Math & Calculators ........................... 2
ADM-116 Keyboarding II ....................................................... 3
ADM-162 Office Procedures ............................................... 3
BCA-134 Word Processing .................................................. 3
ADM-354 Business Professionalism III .......................... 1
ADM-355 Business Professionalism IV .......................... 1
ADM-941 Practicum ................................................................. 5
CSC-110 Introduction to Computers .................................... 3
(can count as general requirement)

Business electives: (select 9 cr. from the following or other business electives approved by advisor)
ACC-161 Payroll Accounting ................................................ 3
ACC-310 Computer Accounting .......................................... 2
BCA-185 Beginning Web Page Dev. ..................................... 3
BCA-217 Advanced Microsoft Office Apps ....................... 3
ECN-120 Principles of Macroeconomics ............................. 3
BUS-183 Business Law .......................................................... 3
MGT-101 Principles of Management .................................... 3
NET-140 Networking Essentials ......................................... 4
MAP-111 Medical Office Management I ..........................3
MAP-117 Medical Office Management II ..........................3
HI-244 Basic CPT Coding ..............................................3
MAP-133 Medical Transcription ....................................3
MAP-141 Medical Insurance ..........................................3
HI-245 Basic ICD-9-CM Coding ....................................3
MAP-128 Automated Medical Office ...............................2
MAP-135 Medical Transcription II .................................3
Remaining AS general requirements and electives ..............................68

Aviation/Airport Management
Associate in Science
Location: Estherville Campus

Required Courses Credits
AVI-180 Private Pilot Flight Lab I (3 cr) ..................................OR
AVI-112 Sport Pilot Ground School (3 cr) .............................AND
AVI-113 Sport Pilot Flight Lab (2 cr) ....................................AND
AVI-114 Sport/Private Pilot Bridge Lab (1 cr) ..............................
AVI-140 Private Pilot Ground School ....................................4
AVI-245 Commercial/Instr Cross Country ............................3
AVI-281 Commercial Pilot Ground School .............................3
AVI-246 Commercial/Instrument Flight Lab ............................3
AVI-212 Instrument Ground School .....................................4
AVI-300 Flight Instructor Ground School .............................3
Take one of the following:
AVI-350 Flight Instructor Flight Lab ..................................OR
AVI-405 Multi-Engine Rating ..........................................3
AVI-941 Practicum .......................................................3
AVI-301 Instrument Instructor .........................................1-5
Total Credits ......................................................................68

Broadcast Media Specialist
(Program suspended after Spring 2015)
Associate in Science
Location: Estherville Campus

Required Courses Credits
MMS-101 Mass Media ......................................................3
(satisfies Humanities or a Social Science requirement)
MMS-241 Public Relations and Marketing ............................3
MMS-298 Portfolio Preparation .........................................0
MMS-105 Audio Production .............................................3
MMS-941 Practicum .......................................................2/5
MMS-115 TV Studio Production .........................................3
MMS-130 Video Field Production .......................................3
MMS-211 Advanced Video Editing .....................................3
MKT-140 Principles of Selling .........................................3
(satisfies business/computers requirement)
JOU-121 Newswriting & Reporting .................................3
JOU-210 Media Law and Ethics ......................................3
MIS-234 Radio Workshop ..............................................4
MMS-225 Advanced Television Production ........................3
MMS-230 Advanced Video Production ...............................3
Total Credits ......................................................................68

Business Administration & Management
Associate in Science
Location: All Sites

Required Courses Credits
Business core requirements:
ACC-131 Principles of Accounting I .................................4
(satisfies business/computers requirement)
BUS-175 Business Seminar I .........................................1
ECN-120 Principles of Macroeconomics ...........................3
ECN-130 Principles of Microeconomics .............................3
BUS-102 Intro to Business ..............................................3
BCA-218 Advanced Microsoft Office Appl ..........................3
ENG-106 Composition II OR 1 approved elective ................OR
BUS-932 Business Practicum (3 cr) .................................3
MKT-110 Principles of Marketing .....................................3
BUS-183 Business Law .................................................3
MKT-101 Principles of Management ................................6
BUS-115 Business Correspondence (2cr.) ............................OR
BUS-121 Business Communication (3cr.) ............................OR
Total Credits ......................................................................68

Small Business Management
MKT-140 Principles of Selling .........................................3
MKT-110 Small Business Management ..............................3
MKT-150 Principles of Advertising ....................................3
BUS-250 Principles of Real Estate .....................................3
MGT-170 Human Resource Management ............................3

Leadership Management
MGT-130 Principles of Supervision ...................................3
BUS-197 Leadership Development .....................................3
MGT-165 Principles of Quality .........................................3
BUS-200 Time, Stress & Change Mgt. .................................3

Banking and Finance
FIN-101 Principles of Banking .........................................3
FIN-180 Intro to Investments .........................................3
FIN-140 Business Finance ..............................................3
BUS-250 Principles of Real Estate .....................................3
BUS-268 Life Insurance & Financial Planning ....................3

Human Resources
BUS-161 Human Relations .............................................3
MGT-190 Employee Comp and Benefits ............................3
MGT-170 Human Resource Management ............................3
MGT-178 Employment Law .............................................3
Total credits ......................................................................69

Computer Programming
Associate in Science
Location: Estherville Campus

Required Courses Credits
CSC-110 Intro to Computers .........................................3
(Can count as general requirement)
NET-140 Network Essentials .........................................4
CIS-141 Computer Science .............................................3
CIS-125 Intro to Prog. Logic w/Language ..........................3
GRA-234 Dreamweaver Level I .......................................3
CIS-204 Web Programming ...........................................3
CIS-161 C++ .................................................................3
CIS-332 Database and SQL ..........................................3
CIS-612 Advanced Visual Basic .....................................3
NET-122 Computer Hardware Basics ...............................3
CIS-171 JAVA .............................................................3
CIS-941 Computer Science Practicum .............................5
MAT-157 Statistics ......................................................4
MAT-140 Finite Math ....................................................3
(Can count as general requirement)
Total credits ......................................................................68
Criminal Justice
Associate in Science
Location: Estherville Campus

Required Courses Credits
CRJ-100 Intro to Criminal Justice ...................... 3
CRJ-225 Healthy Lifestyles Management ............. 3
CRJ-200 Criminology ........................................ 3
CRJ-214 Survival Spanish for CJ .................... 2
CRJ-218 Field Experience I .............................. 2
CRJ-219 Field Experience II ............................. 3
CRJ-130 Criminal Law ....................................... 3
CRJ-207 Drug Use and Abuse ............................ 3
CRJ-250 Firearms ............................................. 1
CRJ-123 Service Learning Project ........................ 1
Physical Education Electives ............................ 3 credits total
Total credits .................................................. 69

Early Childhood Education
Associate in Science
Location: Emmetsburg Campus

To advance in the program course sequence or to graduate a student may have no grade lower than 'C' in any Early Childhood Education (ECE) course or in course EDU-235 and FLS-104.

Required Courses Credits
ECE-170 Child Growth & Development ................ 3
ECE-110 Child Care Professionals I .................... 1
ECE-112 Portfolio Development I ........................ 1
ECE-133 Child Health, Safety & Nutrition ............ 3
ECE-203 Intro to Early Childhood Education .......... 3
ECE-111 Child Care Professionals II ................... 3
ECE-158 Early Childhood Curriculum I ................ 3
ECE-159 Early Childhood Curriculum II ............... 3
ECE-290 Early Childhood Program Admin. .......... 3
ECE-262 Early Childhood Field Experience .......... 3
ECE-243 Early Childhood Guidance .................... 3
ECE-140 Early Childhood Curriculum .................. 3
EDU-235 Children’s Literature ............................ 3
( 3 credits total)
EDU-218 Early Childhood Professionals I ............. 1
ECE-132 Portfolio Development II ..................... 1
ECE-278 Early Childhood Field Experience II ....... 3
CSC-110 Introduction to Computers ..................... 3
( 3 credits total)
Remaining AS general requirements and electives Total credits ............................................... 68

Environmental Studies
Associate in Science
Location: Estherville Campus

Required Courses Credits
EVS-114 Environmental Studies I ....................... 4
EVS-124 Environmental Studies II ..................... 4
EVS-203 Environmental Seminar I ...................... 1
EVS-204 Environmental Seminar II ..................... 1

Take one of the following groups of two courses:

EVS-234 Intro to Env. Technology (4 cr.) .......... AND
EVS-244 Env. Technology Techniques ..............
OR
EVS-254 Intro to Natural Resources (4 cr.) .......... AND
EVS-264 Natural Resources Mgt Techniques .......
EVS-941 Practicum .......................................... 4
Select 12 science credits in addition to 4 credits of general requirement .................................... 12
Remaining AS general requirements and electives
Total credits .................................................. 68

Graphic Design
Associate in Science
Location: Estherville Campus

Required Courses Credits
JOU-171 Introduction to Photography ................. OR
JOU-173 Digital Photography ............................ 3
ART-101 Art Appreciation ................................ 3
( satisfies humanities requirement)
GRA-234 Dreamweaver Level I .......................... 3
GRA-118 Electronic Publishing .......................... 3
( satisfies computer/business requirement)
ART-127 Digital Illustration ............................. 3
ART-133 Drawing ............................................. 3
GRA-175 Graphic Design .................................... 3
GRA-188 Advertising Layout & Composition ....... 3
GRA-140 Digital Imaging .................................. 3
GRA-141 Digital Imaging II .............................. 3
GRA-121 Digital Drawing .................................. 3
GRA-228 Flash ................................................. 3
ART-121 2-D Design ......................................... 4
GRA-162 Web Page Graphics ............................. 3
GRA-801 Graphic Design Seminar I ................. 1
GRA-802 Graphic Design Seminar II ................. 1
GRA-932 Internship ........................................... 2
Remaining AS general requirements and electives
Total Credits .................................................. 69

Human Services/Disability Studies
Associate in Science
Location: Estherville Campus

Required Courses Credits
PSY-111 Introduction to Psychology ................... 3
( can count as general requirement)
DSV-135 Assessment and Instruction ................ 3
DSV-125 Behavior Management ........................ 3
DSV-155 Services & Vocational Planning ........... 4
HSV-225 Counseling Techniques ....................... 3
Complete a total of 6 credits from the following:
DSV-941 Practicum in HS/DS ......................... 3,4,6
DSV-932 Internship HS/DS ............................... 2,3
HSV-114 Medical Terminology ......................... 3
Choose 3 of the courses listed below:
PSY-121 Developmental Psychology .................. 3
PSY-241 Abnormal Psychology ........................ 3
HSV-140 Social Work and Social Welfare ............ 3
HSV-162 Intro to Disabilities & Services ............ 3
PSY-211 Psychology of Adjustment .................... 3
Any Social Science Elective ............................. 3
Remaining AS general requirements and electives
Total Credits .................................................. 69
Journalism and Photography
(Program suspended after 2014)
Associate in Science
Location: Estherville Campus

Required Courses Credits
JOU-200 AP Style Editing .............................................. 3
JOU-177 News Forensics and Advertising Photography ...... 3
GRA-234 Dreamweaver Level I .............................. 3
ART-286 Photography: Portraiture ....................... 3
MMS-101 Mass Media ........................................ 3
GRA-118 Electronic Publishing ..................................... 3
JOU-180 Digital Imaging for Professionals ................. 3
JOU-171 Introduction to Photography ....................... 3
JOU-121 Newswriting and Reporting ....................... 3
JOU-941 Practicum ........................................... 2/5
MKT-110 Principles of Marketing ............................ OR
MKT-150 Principles of Advertising .......................... 3
JOU-140 Newspaper Lab I ....................................... 2
JOU-141 Newspaper Lab II ...................................... 2
JOU-240 Newspaper Lab III .................................... 2
JOU-241 Newspaper Lab IV .................................... 2
JOU-210 Media Law and Ethics .............................. 3
JOU-173 Digital Photography .............................. 3
ENG-106 Composition II ..................................... 3

Total Credits.................................................. 68

Paralegal/Legal Studies
Associate in Science
Location: Estherville Campus

Required Courses Credits
ENG-106 Composition II ..................................... 3
BUS-250 Principles of Real Estate .......................... 3
LGL-120 Introduction to Law and Paralegal .......... 2
LGL-250 Family Law ........................................ 3
LGL-154 Legal Research ...................................... 4
CRJ-230 Criminal Law and Procedure .................. 3
LGL-180 Torts and Litigation ................................ 3
LGL-140 Wills, Trusts and Estate Admin .......... 3
LGL-161 Legal Writing ....................................... 4
LGL-242 Civil Procedure and Practice ............... 3
LGL-210 Contract Law ....................................... 3
LGL-121 Law Office Software ............................ 1
LGL-122 Legal Ethics ....................................... 2
LGL-941 Legal Assistant Practicum ...................... 4/6

Complete at least two of the following four courses:
ACC-261 Income Tax Accounting .......................... 3
LGL-205 Employment Law ...................................... 3
LGL-200 American Trial Process ....................... 3
BUS-183 Business Law ........................................ 3

Remaining AS general requirements and electives
Total Credits .................................................. 68

Sales and Marketing Management
Associate in Science
Location: Emmetsburg Campus

Required Courses Credits
BUS-161 Human Relations ..................................... 3
ACC-111 Intro to Accounting .................................. 3
BUS-175 Business Seminar I .................................. 1
MKT-142 Consumer Behavior .................................. 3
MKT-155 Visual Merchandising ............................ 4
MKT-938 On-the-Job Training ................................ 2
MKT-140 Principles of Selling ............................ 3
MGT-101 Principles of Management ..................... 3

BUS-932 Practicum ............................................. 5
MKT-110 Principles of Marketing ........................... 3
MKT-150 Principles of Advertising ........................ 3
MKT-162 Retail Merchandising .............................. 3
MKT-290 Professionalism: DEX/DECA ................... 1
MKT-291 Professionalism II: DEX/DECA ............... 1
MKT-292 Professionalism III: Dex/DECA ............... 1
MKT-293 Professionalism IV: Dex/DECA ............... 1

*Take at least 2 DECA Activities for credit

Remaining AS general requirements and electives
Total Credits .................................................. 69

Substance Abuse Counseling
Associate in Science
Location: Estherville

Required Courses Credits
DSV-135 Assessment & Instruction ................................ 3
HSV-225 Counseling Techniques .................................. OR
PSY-121 Developmental Psychology ........................ 3
DVS-160 Counseling Skills (4cr.) .................................. OR
PSY-111 Introduction to Psychology ........................ 3

(can count as general requirements)
CRJ-207 Drug Use & Abuse .................................. 3
PHI-105 Introduction to Ethics ................................ 3
SOC-200 Minority Group Relations ....................... 3
PSY-241 Abnormal Psychology .............................. 3
HSV-293 Substance Abuse and Treatment Planning .... 3
HSV-901 Substance Abuse Practicum I ................... 3
HSV-902 Substance Abuse Practicum II ................... 4

Remaining AS general requirements and electives
Total Credits .................................................. 68

Sustainable Energy Resource Management
Associate in Science
Location: Estherville

Required Courses Credits
SER-101 Intro to Sustainable Energy Resources .......... 3
EVS-203 Environmental Seminar I .......................... 1
BUS-102 Introduction to Business .......................... 3
CSC-110 Intro to Computers .................................. 3
PSY-111 Intro to Psychology .................................. 3
EVS-114 Environmental Studies I .......................... 4

............................... (can count as general requirement)
EVS-124 Environmental Studies II .......................... 4
SER-111 Intro to Wind Energy Resources .................. 3
EVS-204 Environmental Seminar II ....................... 1
MKT-140 Principles of Selling .................................. 3
EVS-941 Environmental Practicum .......................... 4
SER-121 Intro to Biomass Energy Resources ............ 3
ACC-131 Principles of Accounting I ..................... 4
MKT-110 Principles of Marketing .......................... 3
ECN-120 Macroeconomics .................................. 3
SER-201 Sustainable Energy Resources Mgt. .......... 3

ACC-132 Principles of Accounting II ..................... 4
ECN-130 Microeconomics .................................. 3
MGT-101 Principles of Management ..................... 3
PHI-105 Introduction to Ethics ............................. 3

Remaining AS general requirements and electives
Total Credits .................................................. 70
**Web Development & Design**  
**Associate in Science**  
*Location: Estherville Campus*

**Required Courses Credits**
- CIS-204 Web Programming .................................................. 3
- GRA-121 Digital Drawing ..................................................... 3
- CSC-110 Intro to Computers ............................................... 3
- GRA-140 Digital Imaging .................................................... 3
- MKT-150 Principles of Advertising (3cr.) .......................... OR
- MKT-110 Principles of Marketing ......................................... 3
- GRA-234 Dreamweaver Level I  .......................................... 3
- GRA-932 Web Development Internship ................................. 4
- GRA-235 Dreamweaver Level II .......................................... 3
- GRA-162 Web Page Graphics ............................................... 3
- JOU-173 Digital Photography .............................................. 3
- GRA-228 Flash ................................................................ 3
- GRA-166 Web Animations .................................................... 3

Remaining AS general requirements and electives  
Total Credits ........................................................................... 68
Technical Programs

Two-year technical programs are designed to prepare students for successful job entry. The Associate in Applied Science degree is awarded on completion. Beginning Fall 2014 Career Option programs that previously ended in a AS degree will now end with a AAS degree. Some courses may be transferable to other colleges.

Programs are available in the following areas:
- Accounting Specialist
- Administrative Assistant
- Agribusiness Technology
- Agriculture Production Technology
- Associate Degree Nursing
- Automotive Collision and Paint Technology
- Automotive Technology
- Aviation/Airport Management
- Business Administration & Management
- Computer Programming
- Construction Technology
- Criminal Justice
- Digital, Social & Broadcast Productions
- Early Childhood Education
- Electrical Technology
- Engineering Technology
- Environmental Studies
- Farm Equipment and Diesel Technology
- Game Design & Development
- Graphic Design
- Heating, Ventilation & Air Conditioning Technology
- Hotel and Restaurant Management
- Human Services/Disability Studies
- Landscape & Turfgrass Technology
- Marine Service Technology
- Paralegal/Legal Studies
- Powersports & Power Equipment Technology
- Sales & Marketing Management
- Substance Abuse Counseling
- Surgical Technology
- Sustainable Energy Resources Management
- Veterinary Technician
- Water Quality & Sustainable Aquatic Resources
- Web Development & Design
- Wind Energy and Turbine Technology

Accounting Specialist

Associate in Applied Science
Location: All Sites / Online

Required Courses Credits
ACC-131 Principles of Accounting I ................. 4
CSC-110 Introduction to Computers .................. 3
( can count as general requirement)
ACC-161 Payroll Accounting ......................... 3
BUS-175 Business Seminar I ........................... 1
ENG-106 Composition II ............................... 3
ACC-132 Principles of Accounting II ............... 4
BUS-211 Business Statistics .......................... 4
ACC-310 Computerized Accounting .................. 2
SPC-101 Fund of Oral Comm ................................ 3
ACC-231 Intermediate Accounting I .................. 4
ACC-221 Cost Accounting ................................ 3
ACC-261 Income Tax Accounting ..................... 3
ACC-941 Practicum ........................................ 2
ENG-106 Composition II .................................. 3
ACC-223 Business Seminar II ....................... 3
ACC-118 Business Law .................................. 3
ACC-224 Business Math & Calculators ............... 2
ACC-121 Business Math .................................. 3
ACC-941 Practicum ........................................ 5
ENG-106 Composition II .................................. 3
Total Credits .................................................. 68

Agribusiness Technology

Associate in Applied Science
Location: Emmetsburg Campus

Required Courses Credits
AGB-194 Beginning Sales ................................ 2
AGB-327 Principles of Farm Business Mgmt ........ 2
AGB-103 Agricultural Computers ..................... 3
AGB-437 Commodity Marketing ....................... 3
AGB-317 Agricultural Business Field Studies ....... 1
AGB-194 Beginning Sales ................................ 2
AGB-327 Principles of Farm Business Mgmt ........ 2
AGB-103 Agricultural Computers ..................... 3
AGB-437 Commodity Marketing ....................... 3
AGB-317 Agricultural Business Field Studies ....... 1
Agriculture Production Technology

**Required Courses Credits**

<table>
<thead>
<tr>
<th>Course Code</th>
<th>Course Name</th>
<th>Credits</th>
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<tbody>
<tr>
<td>ACC-111</td>
<td>Intro to Accounting</td>
<td>3</td>
</tr>
<tr>
<td>AGB-210</td>
<td>Agricultural Law</td>
<td>2</td>
</tr>
<tr>
<td>AGM-102</td>
<td>Farm Equipment Maintenance (1 cr.)</td>
<td>OR</td>
</tr>
<tr>
<td>AGP-242</td>
<td>Precision Agricultural Apps</td>
<td>2</td>
</tr>
<tr>
<td>AGA-114</td>
<td>Principles of Agronomy</td>
<td>3</td>
</tr>
<tr>
<td>AGA-156</td>
<td>Introduction to Soils</td>
<td>3</td>
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<tr>
<td>AGS-284</td>
<td>Pesticide App Certification</td>
<td>3</td>
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<tr>
<td>AGS-352</td>
<td>Soil Science &amp; Fertilizer</td>
<td>2</td>
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<tr>
<td>AGS-375</td>
<td>Integrated Crop Management</td>
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<tr>
<td>AGA-353</td>
<td>Advanced Soil Fertility</td>
<td>2</td>
</tr>
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<td>AGM-203</td>
<td>Ag Welding</td>
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<td>AGS-240</td>
<td>Animal Health</td>
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<td>AGA-436</td>
<td>Grain Merchandising</td>
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<td>AGA-466</td>
<td>Agricultural Finance</td>
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<tr>
<td>MAT-772</td>
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<td>MAT-110</td>
<td>Math for Liberal Arts</td>
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<td>COM-781</td>
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<td>ENG-105</td>
<td>Composition</td>
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<td>BUS-161</td>
<td>Human Relations</td>
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<tr>
<td>AGC-111</td>
<td>Basic First Aid/Life Support</td>
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<tr>
<td>AGC-936</td>
<td>Occupational Experience</td>
<td>3</td>
</tr>
<tr>
<td>AGC-937</td>
<td>Occupational Experience</td>
<td>3</td>
</tr>
<tr>
<td>AGC-938</td>
<td>Occupational Experience</td>
<td>3</td>
</tr>
<tr>
<td>SPC-101</td>
<td>Fundamentals of Oral Comm</td>
<td>3</td>
</tr>
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<td>AGC-210</td>
<td>Employment Seminar</td>
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<td>AGS-114</td>
<td>Survey of the Animal Industry</td>
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<td>AGS-319</td>
<td>Animal Nutrition</td>
<td>3</td>
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<td>AGA-436</td>
<td>Grain Merchandising</td>
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<tr>
<td>AGA-466</td>
<td>Agricultural Finance</td>
<td>3</td>
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</table>

**Elective Courses:**

*(Take 6 credits from the following:)*

- AGA-437 Commodity Marketing ........................................ 3
- BUS-161 Human Relations .................................................. 3
- AGG-936 Occupational Experience ..................................... 3
- AGS-350 Artificial Insemination of Cattle .......................... 1
- AGS-400 Swine Production I .............................................. 2
- AGS-510 Swine Confinement Systems .................................... 2
- AGS-511 Adv Swine Confinement Mgt .................................... 2
- AGS-529 Swine Reproduction & Mgt ...................................... 2
- AGS-556 Intro to Beef Cow Production ................................ 2
- AGS-557 Advanced Beef Cow Production ................................ 2
- AGS-359 Beef Feedlot Production ...................................... 2
- AGS-561 Advanced Beef Production ..................................... 2
- AGS-562 Farm Enterprise Beef Feedlot ................................ 1
- AGS-563 Farm Enterprise Exp Cow-Calf ................................ 1
- AGS-565 Farm Enterprise Swine Tech ................................... 1
- AGS-566 Farm Enterprise Swine Mgt .................................... 1

**Total** ........................................................................... 78

**Associate in Applied Science**

*Location: Emmetsburg Campus*

**Required Courses Credits**

- AGA-111 Intro to Accounting .............................................. 3
- AGA-156 Introduction to Soils ............................................. 3
- AGC-317 Agriculture Field Studies ...................................... 1
- AGM-203 Ag Welding ............................................................ 2
- AGA-375 Integrated Crop Management .................................... 2
- AGA-374 Pest Identification ................................................ 1
- AGC-111 Basic First Aid/Life Support ................................... 1
- AGB-210 Agricultural Law .................................................... 2
- AGM-102 Farm Equipment Maintenance (1 cr.) .......................... OR
- AGP-242 Precision Agricultural Apps .................................... 2
- ENG-105 Composition ........................................................... 3
- AGM-102 Farm Equipment Maintenance (1 cr) .......................... OR
- AGP-242 Precision Ag Applications ....................................... 2
- MAT-772 Applied Math .......................................................... OR
- MAT-110 Math for Liberal Arts ............................................. 3
- AGC-938 Occupational Experience ...................................... 3
- AGB-281 Computerized Ag Accounting .................................... 1
- AGA-466 Agricultural Finance ............................................. 3
- AGC-210 Employment Seminar ............................................. 1

**Elective Courses:**

*(Take 19 credits from the following. Must take at least 4 credits from the Enterprise Labs approved list.)*

- AGA-218 Grain Harvest, Hdlg, Drying .................................. 2
- AGC-936 Occupational Experience ...................................... 3
- AGS-436 Grain Merchandising ............................................. 2
- AGS-400 Swine Production I .............................................. 2
- AGS-522 Swine Grower/Finisher Mgt .................................... 2
- AGS-529 Swine Reproduction & Mgt ...................................... 2
- AGS-510 Swine Confinement Systems .................................... 2
- AGS-511 Adv Swine Confinement Mgt .................................... 2
- AGA-210 Agricultural Law .................................................... 2
- AGS-556 Intro to Beef Cow Production ................................ 2
- AGS-557 Advanced Beef Cow Production ................................ 2
- AGS-558 Grazing Systems & Forage Mgt ................................ 2
- AGS-559 Beef Feedlot Production ........................................ 2
- AGS-561 Advanced Beef Production ..................................... 2
- AGA-353 Advanced Soil Fertility ......................................... 2
- AGS-240 Animal Health ........................................................ 2
- AGS-352 Soil Science & Fertilizer ....................................... 2

**Enterprise Labs:**

- AGA-350 Artificial Insemination of Cattle .......................... 1
- AGA-562 Farm Enterprise Beef Feedlot ................................ 1
- AGA-563 Farm Enterprise Exp Cow-Calf ................................ 1
- AGA-565 Farm Enterprise Swine Tech ................................... 1
- AGA-566 Farm Enterprise Swine Mgt .................................... 1
- AGA-840 Agronomy Lab ........................................................ 1

**Total** ........................................................................... 78

**Associate Degree Nursing**

*Location: Emmetsburg Campus*

Admission to the Associate Degree Nursing program follows the guidelines outlined in the Prospective Nursing Student Bulletin and/or Nursing Program Student Handbook. All coursework must be completed with a grade of “C” or higher.

The nursing program is approved by the Iowa Lakes Community College Board of Trustees, the State Board of Education and the Iowa Board of Nursing.

The following are prerequisites & must be taken BEFORE enrolling in any Nursing courses (PNN or ADN).

1. College Chemistry and Lab (CHM-151, 4 cr.
2. Successfully complete a state approved 75 hour Certified Nurse Aide course (HSC-172) or complete a non-credit Nurse Aide course through Continuing Education.
3. Human Anatomy & Physiology with lab (BIO-168).
4. Nutrition (HSC-163 or BIO-151)

**Required Courses Credits**

- HSC-172 Nurse Aid course .................................................... OR
- HSC-152 Dosage Calculations ............................................... 2
- BIO-173 Anatomy & Physiology II and Lab ............................. 4
### Automotive Collision & Paint Repair Technology

**Associate in Applied Science**  
**Location:** Emmetsburg Campus

**Required Courses Credits**

<table>
<thead>
<tr>
<th>Course Code</th>
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<th>Credits</th>
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<tbody>
<tr>
<td>CRR-302</td>
<td>Introduction to Collision Repair</td>
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<td>WEL-334</td>
<td>Trade &amp; Industry Welding</td>
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<td>BUS-161</td>
<td>Human Relations</td>
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<td>CRR-326</td>
<td>Sheet Metal Repair Th</td>
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<td>CRR-327</td>
<td>Sheet Metal Repair Lab</td>
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<td>CRR-421</td>
<td>Non-Structural Repair Th</td>
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<td>CRR-422</td>
<td>Non-Structural Repair Lab</td>
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<td>AUT-803</td>
<td>Plastic Repairs Th</td>
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<tr>
<td>CRR-742</td>
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<td>CRR-749</td>
<td>Estimating Lab</td>
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<td>CRR-351</td>
<td>Collision Lab I</td>
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<tr>
<td>CRR-808</td>
<td>Introduction to Refinishing Theory</td>
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<td>CRR-809</td>
<td>Introduction to Refinishing Lab</td>
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<td>COM-725</td>
<td>Workplace Communications</td>
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<td>CRR-908</td>
<td>Cooperative Education</td>
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<td>MAT-770</td>
<td>Applied Math</td>
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<td>CRR-540</td>
<td>Structural Repair Th</td>
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<td>CRR-541</td>
<td>Structural Repair Lab</td>
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<td>CRR-606</td>
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<td>CRR-607</td>
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<td>CRR-838</td>
<td>Refinishing II Theory</td>
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<td>CRR-839</td>
<td>Refinishing II Lab</td>
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<td>CRR-352</td>
<td>Collision Repair Lab</td>
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<tr>
<td>ACC-111</td>
<td>Intro to Accounting (3 cr.)</td>
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<tr>
<td>ACC-131</td>
<td>Principles of Accounting I</td>
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<tr>
<td>ENG-105</td>
<td>Composition I</td>
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<td>CSC-110</td>
<td>Introduction to Computers</td>
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<tr>
<td>BUS-</td>
<td>Business or Management course as approved</td>
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<td>SPC-101</td>
<td>Fund of Oral Communication</td>
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<td>+ Coordinator approved electives</td>
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### Aviation/Airport Management

**Associate in Applied Science**  
**Location:** Estherville Campus

**Required Courses Credits**

<table>
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<tr>
<td>AVI-180</td>
<td>Private Pilot Flight Lab I</td>
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<tr>
<td>AVI-112</td>
<td>Sport Pilot Ground School</td>
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<tr>
<td>AVI-113</td>
<td>Sport Pilot Flight Lab</td>
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<td>AVI-140</td>
<td>Private Pilot Ground School</td>
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<tr>
<td>AVI-245</td>
<td>Commercial/Instr Cross Country</td>
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<tr>
<td>AVI-261</td>
<td>Commercial Pilot Ground School</td>
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<tr>
<td>AVI-246</td>
<td>Commercial/Instrument Flight Lab</td>
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<td>AVI-212</td>
<td>Instrument Ground School</td>
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<td>AVI-300</td>
<td>Flight Instructor Ground School</td>
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<tr>
<td>ENG-105</td>
<td>Composition I</td>
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<td>SPC-101</td>
<td>Fund of Oral Comm</td>
<td>3</td>
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<tr>
<td>CSC-110 or 3 cr BUS course</td>
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**Take one of the following:**

<table>
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<th>Credits</th>
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<tbody>
<tr>
<td>AVI-350</td>
<td>Flight Instructor Flight Lab</td>
<td>OR</td>
</tr>
<tr>
<td>AVI-405</td>
<td>Multi-Engine Rating</td>
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**Take one of the following:**

<table>
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<th>Credits</th>
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<tbody>
<tr>
<td>AVI-941</td>
<td>Practicum (3)</td>
<td>OR</td>
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<tr>
<td>AVI-301</td>
<td>Instrument Instructor</td>
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**Take 7 credits from the following:** AVI-110, AVI-129, AVI-215, ENG-106, PSY-111 or any MAT.

Remaining general requirements and electives: 6 cr math, 8 science, 9 cr social science/humanities

**Total Credits**  

<table>
<thead>
<tr>
<th>Credits</th>
</tr>
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<tbody>
<tr>
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### Business Administration & Management

**Associate in Applied Science**  
**Location:** All Sites

**Required Courses Credits**

**Business core requirements:**

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<td>ACC-132</td>
<td>Principles of Accounting II</td>
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<td>CSC-110</td>
<td>Introduction to Computers</td>
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<td>ENG-105</td>
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<td>BUS-175</td>
<td>Business Seminar I</td>
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<td>ECN-120</td>
<td>Principles of Macroeconomics</td>
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<td>Principles of Microeconomics</td>
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<td>BUS-102</td>
<td>Intro to Business</td>
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<tr>
<td>BCA-218</td>
<td>Advanced Microsoft Office Appl</td>
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**Total Credits**  

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</table>
Small Business Management  ..............................................

Choose 4 concentration courses from the tracks below for a total of 12 credits. (or get prior approval for other concentration courses)

**Small Business Management**
- MKT-140 Principles of Selling ............................................ 3
- MG-T-110 Small Business Management ................................. 3
- MKT-150 Principles of Advertising ....................................... 3
- BUS-250 Principles of Real Estate ....................................... 3
- MG-T-170 Human Resource Management ............................... 3

**Leadership Management**
- MGT-130 Principles of Supervision .................................... 3
- BUS-197 Leadership Development ....................................... 3
- MGT-165 Principles of Quality .......................................... 3
- BUS-200 Time, Stress & Change Mgt. ................................. 3

**Banking and Finance**
- FIN-101 Principles of Banking .......................................... 3
- FIN-180 Intro to Investments ............................................ 3
- FIN-140 Business Finance ................................................ 3
- BUS-250 Principles of Real Estate ..................................... 3
- BUS-268 Life Insurance & Financial Planning ..................... 3

**Human Resources**
- BUS-161 Human Relations .............................................. 3
- MGT-190 Employee Comp and Benefits ............................... 3
- MGT-170 Human Resource Management ............................... 3
- MGT-178 Employment Law ............................................... 3

Total credits ........................................................................ 69

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**Construction Technology**

**Associate in Applied Science**

*Location: Emmetsburg Campus*

**Required Courses Credits**

- HSC 134 - First Aid/CPR .................................................. 1
- CON 113 - Construction Printreading ................................ 2
- CON 195 - Foundations and Concrete ................................ 5
- CON 201 - Framing Techniques and Lab I ........................... 2
- CON 218 - Framing Techniques and Lab II .......................... 4
- CON 300 - Optimum Value Engineering- Adv. Framing ......... 1
- CON 217 - Exterior Finishing ........................................... 3
- MAT 770 - Applied Math .................................................. 2
- CON 106 - Construction Welding ........................................ 1 OR
- CON 120 - Construction Estimating ................................... 1
- BUS 161 - Human Relations ............................................ 3
- CON 238 - Techniques of Exterior Covering ....................... 4
- COM 725 - Communications Skills ................................... 2 OR
- ENG-105 - Composition I ................................................. 3
- CON 228 - Methods of Interior Finishing and Lab ............... 3
- CON 229 - Installation of Interior Finishing ......................... 3
- CON 431 - Construction Internship I ................................. 6
- SPC 101 - Fundamentals of Oral Communication ................. 3
- CON 351 - Computer Generated Blueprint and Design ........ 3
- CSC 110 - Introduction to Computers ................................. 3
- ACC 111 - Introduction to Accounting ............................... 3

15 credits from instructor approved Math, Business and Construction courses

Total ................................................................................. 77

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**Criminal Justice**

**Associate in Applied Science**

*Location: Estherville Campus*

**Required Courses Credits**

- CRJ-100 Intro to Criminal Justice ..................................... 3
- PEH-225 Healthy Lifestyles Management ............................ 3
- CRJ-200 Criminology ....................................................... 3
- CRJ-214 Survival Spanish for CJ ....................................... 2
- CRJ-218 Field Experience I .............................................. 2
- CRJ-219 Field Experience II ............................................. 3
- CRJ-130 Criminal Law ..................................................... 3
- CRJ-207 Drug Use and Abuse .......................................... 3
- CRJ-133 Constitutional Criminal Procedure ....................... 3
- CRJ-201 Juvenile Delinquency ......................................... 3
- CRJ-250 Firearms .......................................................... 1
- CRJ-123 Service Learning Project .................................... 1
- Physical Education Electives ............................................ 3 credits total
- CJ Concentration courses .............................................. 10 credits

Remaining AAS general requirements and electives

Total credits ....................................................................... 68

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**Digital, Social & Broadcast Productions**

**Associate in Applied Science**

*Location: Estherville Campus*

- GRA-140 Digital Imaging (Photoshop) ................................. 3
- JOU-173 Digital Photography ............................................ 3
- JOU-190 Foundations in Digital Media Marketing, Writing, and Community Engagement 3
- MMS-129 Digital Audio & Video Production and Editing .... 3
- MMS-122 Career Seminar ................................................ 1
- MMS-401 Multimedia Projects I ........................................ 2
- ENG-105 English Composition I ...................................... 3
- MMS-101 Mass Media ..................................................... 3
- GRA-141 Digital Imaging II .............................................. OR 3
- MMS-234 Radio Workshop .............................................. OR 4

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### Early Childhood Education

**Associate in Applied Science**  
*Location: Emmetsburg Campus*

To advance in the program course sequence or to graduate a student may have no grade lower than 'C' in any Early Childhood Education (ECE) course or in FLS-104.

**Program requirements:**
- ECE-170 Child Growth & Development ............... 3
- ECE-110 Early Childhood Professionals I ............. 1
- ECE-112 Portfolio Development I ......................... 1
- ECE-133 Child Health, Safety & Nutrition .............. 3
- ECE-103 Intro to Early Childhood Education ............ 3
- ECE-111 Early Childhood Professionals II ............. 1
- ECE-158 Early Childhood Curriculum I ................ 3
- ECE-159 Early Childhood Curriculum II ................. 3
- ECE-290 Early Childhood Program Admin ................ 3
- ECE-262 Early Childhood Field Experience ............. 3
- ECE-243 Early Childhood Guidance ...................... 3
- ECE-140 Early ChildhoodCurr. Planning ............... 3
- ECE-210 Early Childhood Professionals III ............ 1
- FLS-104 Spanish for Professionals .................... 2
- ECE-261 Contemporary Issues in Early Childhood .... 3
- ECE-221 Infant/Toddler Care and Education .......... 3
- ECE-113 Portfolio Development II ....................... 1
- ECE-278 Early Childhood Field Experience II ........ 3
- SPC-101 Fund. of Oral Comm ............................. 3
- ENG-105 Composition I ................................ 3
- ENG-106 Composition II ................................ 3
- EDU-235 Children’s Literature .......................... 3

Remaining general requirements and electives, 3 or math 4 credits science, 6 credit social science.  
Total credits .................................................. 69

### Engineering Technology

**Associate in Applied Science**  
*Location: Estherville Campus*

**Required Courses Credits**
- ELE-119 Basic Electricity I ............................ 4
- SER-124 Industrial Safety and Workplace Environment .. 1
- SER-114 Blueprint Reading ................................ 1
- SER-116 Career Seminar .................................. 1
- SER-101 Energy, Sustainability and the Environment .... 3
- ELE-155 National Electrical Code I ..................... 2
- ELE-181 Residential Electric/Electronic Systems ...... 4
- MAT-101 Intermediate Algebra ......................... 3
- ELE-136 Basic Electricity II ............................ 4
- ELE-226 Electric Motors and Generators ................ 4
- ELE-156 National Electrical Code II .................... 2
- ELE-354 Commercial Electric/Electronic Systems ...... 3
- BUS-121 Business Communications ...................... 3
- PHY-184 Applied Physics ................................ 4
- ELE-933 Electrical Technology Practicum .............. 5
- WTT-206 High Volt Awareness/Fall Rescue Training ..... 1
- ELE-158 National Electrical Code III ................... 2
- ELE-182 Basic Electronics ................................ 4
- ELE-183 Electrical Practical Applications .............. 4
- WTT-216 Power Generation and Transmission .......... 3
- NET-142 Network Essentials ............................ 3
- HCR-414 Controls for HVACR ............................ 4
- ELE-255 National Electrical Code IV .................... 2
- ELE-242 Programmable Logic Control Systems ........ 4
- ELE-357 Industrial Electrical/Electronic Systems .... 3
- SER-107 Sustainable Energy Power Systems ............ 3
- MGT-101 Principles of Management ..................... 3
- BUS-161 Human Relations ................................ 3

Total Credits ................................................. 83

### Electrical Technology

**Associate in Applied Science**  
*Location: Estherville Campus*

**Required Courses Credits**
- ELE-119 Basic Electricity I ............................ 4
- SER-124 Industrial Safety and Workplace Environment .. 1
- SER-114 Blueprint Reading ................................ 1
- SER-116 Career Seminar .................................. 1
- SER-101 Energy, Sustainability and the Environment .... 3
- ELE-155 National Electrical Code I ..................... 2
- ELE-181 Residential Electric/Electronic Systems ...... 4
- MAT-101 Intermediate Algebra ......................... 3
- ELE-136 Basic Electricity II ............................ 4
- ELE-226 Electric Motors and Generators ................ 4
- ELE-156 National Electrical Code II .................... 2
- ELE-354 Commercial Electric/Electronic Systems ...... 3
- BUS-121 Business Communications ...................... 3
- PHY-184 Applied Physics ................................ 4
- ELE-933 Electrical Technology Practicum .............. 5
- WTT-206 High Volt Awareness/Fall Rescue Training ..... 1
- ELE-158 National Electrical Code III ................... 2
- ELE-182 Basic Electronics ................................ 4
- ELE-183 Electrical Practical Applications .............. 4
- WTT-216 Power Generation and Transmission .......... 3
- NET-142 Network Essentials ............................ 3
- HCR-414 Controls for HVACR ............................ 4
- ELE-255 National Electrical Code IV .................... 2
- ELE-242 Programmable Logic Control Systems ........ 4
- ELE-357 Industrial Electrical/Electronic Systems .... 3
- SER-107 Sustainable Energy Power Systems ............ 3
- MGT-101 Principles of Management ..................... 3
- BUS-161 Human Relations ................................ 3

Total Credits ................................................. 83

**Plus an Emphasis Track - Choose Below**

#### Automation Emphasis
- ATR-105 Industrial Robotics ............................ 3
- ATR-106 Motion Control .................................. 3
- ELT-177 Microcontrollers ............................... 3

**Plus One Elective from the Following:**
- EGT-137 Fluid Power Control ........................... 4
- ELT-177 Microcontrollers ............................... 3
- IND-136 Process Control I ................................ 3
- IND-137 Process Control II ................................ 3
- CHM-151 College Chemistry I ........................... 4

#### Electromechanical Emphasis
- ATR-106 Motion Control .................................. 3
- EGT-137 Fluid Power Control ........................... 4

**Plus One Elective from the Following:**
- ATR-105 Industrial Robotics ............................ 3
- ELT-177 Microcontrollers ............................... 3
### Environmental Studies

**Associate in Applied Science**  
**Location:** Estherville Campus

**Required Courses Credits**
- ENG-105 Composition I ........................................... 3  
- ENG-106 Composition II ........................................ 3  
- SPC-101 Fund of Oral Comm .................................... 3  
- MGT-101 or MGT-170 or 3 credit elective .................... 3  
- CSC-110 Intro to Computers .................................... 3  
- EVS-114 Environmental Studies I ............................... 4  
- EVS-124 Environmental Studies II ............................. 4  
- EVS-203 Environmental Seminar I ............................. 1  
- EVS-204 Environmental Seminar II ............................ 1  
- EVS-941 Practicum ............................................. 4  

Take one of the following groups of two courses:  
- EVS-234 Intro to Env. Technology (4 cr.) .................... AND  
- EVS-244 Env. Technology Techniques ........................... 4

**OR**  
- EVS-254 Intro to Natural Resources (4 cr.) ................. AND  
- EVS-264 Natural Resources Mgt Techniques .................. 4

Remaining general requirements and electives: 5 cr math, 10 cr social science/humanities.

**Total credits** ................................................. 68

### Farm Equipment and Diesel Technology

**Associate in Applied Science**  
**Location:** Emmetburg Campus

**Required Courses Credits**
- AGM-416 Combine & Impl Repair & Adj ......................... 4  
- AGM-411 Engine Repair ......................................... 6  
- AGM-425 Farm Equipment Air Conditioning ................... 4  
- AGM-850 Dealership Experience ................................ 2  
- AGM-430 Differentials and Final Drives ...................... 6  
- AGM-431 Transmissions ........................................ 7  
- AGM-114 Hydraulic I .......................................... 2  
- AGM-115 Hydraulic Components Lab ......................... 3  
- AGM-116 Fundamentals of Hydraulics ........................ 3  
- AGM-117 Fundamentals of Hydraulics Lab .................... 2  
- COM-723 Workplace Communications ........................... 3  
- MAT-772 Applied Math ....................................... 3  
- AGM-413 Diesel Engine Overhaul .............................. 5  
- AGM-850 Dealership Experience .............................. 2  
- BUS-126 Business Principles .................................. 3  
- BUS-161 Human Relations ...................................... 3  
- BCA-212 Intro to Computer Business Apps .................. 3  
- AGM-420 Fuel Systems ........................................ 2  
- AGM-421 Fuel Systems Lab ..................................... 3  
- AGM-300 Fundamentals of Electricity  ....................... 3  
- AGM-301 Fundamentals of Electricity Lab ................... 2  
- AGM-302 Electrical Components ................................ 2  
- AGM-303 Electrical Components Lab ........................ 3

**WEL-334 Trade and Industry Welding** ....................... 2

**Total** ............................................................. 78

### Game Design & Development

**Associate in Applied Science**  
**Location:** Estherville Campus

**Required Courses Credits**
- CIS-125 Intro to Programming w/Lang ........................ 3  
- NET-122 Computer Hardware Basics .......................... 3  
- GRA-234 Dreamweaver Level 1 ................................ 3  
- CIS-332 Database Info. Systems .............................. 3  
- ENG-105 Composition 1 ........................................ 3  
- NET-142 Networking Essentials ................................ 3  
- CIS-141 Computer Science 1 .................................. 3  
- CIS-204 Web Programming 1 .................................... 3  
- MAT-157 Statistics OR ........................................ 4  
- MAT-120 College Algebra ...................................... 3  
- ENG-106 Composition II ....................................... 3  
- PSY-111 Intro to Psychology .................................. 3  
- MAT-140 Finite Math OR ....................................... 3  
- MAT-130 Trigonometry ......................................... 3  
- CIS-941 Practicum ............................................. 4  
- CIS-146 Intro to Video Game Dev. ............................ 3  
- CIS-166 C++/C# for Game Dev. ............................... 3  
- CIS-147 3D Level Design for Games .......................... 3  
- CIS-366 Game Development 1 .................................. 3  
- SPC-101 Fund. of Oral Comm .................................. 3  
- PHI-114 Critical Thinking ..................................... 3  
- CIS-148 3-D Modeling & Char. Animation .................... 3  
- GRA-166 Web Animations ..................................... 3  
- CIS-367 Game Dev. II ......................................... 3  
- PHI-105 Intro to Ethics ....................................... 3  
- PHS-113 Intro to Physical Science ........................... 4  
- SOC-110 Intro to Sociology .................................... 3

**Total** ............................................................. 77

### Graphic Design

**Associate in Applied Science**  
**Location:** Estherville Campus

**Required Courses Credits**
- ART-101 Art Appreciation ..................................... 3  
- GRA-118 Electronic Publishing ............................... 3  
- ENG-105 Composition I ........................................ 3  
- SPC-101 Fund. Of Oral Communication ....................... 3  
- ART-127 Digital Illustration .................................. 3  
- ART-133 Drawing I ............................................. 3  
- GRA-175 Graphic Design ...................................... 3  
- GRA-188 Advertising Layout & Composition ................. 3  
- GRA-140 Digital Imaging ...................................... 3  
- GRA-141 Digital Imaging II ................................... 3  
- GRA-121 Digital Drawing ...................................... 3  
- GRA-228 Flash .................................................. 3  
- ART-121 2-D Design .......................................... 4  
- GRA-162 Web Page Graphics .................................. 3  
- GRA-801 Graphic Design Seminar I .......................... 3  
- GRA-802 Graphic Design Seminar II ........................ 3  
- GRA-932 Internship ............................................ 2  
- JOU-173 Digital Photography .................................. 3  

+ Coordinator approved electives in JOU, ART, GRA.

Remaining general requirements and electives: 3 cr math, 4 cr science, 6 cr social science.

**Total credits** .................................................. 69
Required Courses Credits

**Heating, Ventilation & Air Conditioning Technology**

**Associate in Applied Science**

*Location: Estherville Campus*

- MGT-101 Principles of Management ............................................. 3
- ELE-226 Electric Motors & Generators ............................................ 4
- WTT-206 High Voltage Awareness & Fall Rescue Training ................. 1
- HCR-505 Air Distribution .............................................................. 3
- HCR-810 Energy Management ......................................................... 3
- HCR-414 Controls for HVACR ......................................................... 3
- HCR-305 Fundamentals of Refrigeration .......................................... 3
- HCR-125 Oil & Hydronic Heating .................................................... 3
- BUS-121 Business Communications ............................................... 3
- HCR-932 Internship (4): On the job training for HVAC ..................... 4
- Total .......................................................................................... 80

**Human Services/Disability Studies**

**Associate in Applied Science**

*Location: Estherville Campus*

Program requirements:

- PSY-111 Introduction to Psychology .............................................. 3
- ENG-105 Composition I ................................................................. 4
- HSV-284 Case Management .......................................................... 3
- SCS-101 Basic Sign Language ....................................................... 2
- SPC-101 Fund of Oral Comm ........................................................... 3
- DSV-125 Behavior Management ..................................................... 3
- DSV-155 Services & Vocational Planning ........................................ 4
- HSV-225 Counseling Techniques .................................................... 3
- PSY-121 Developmental Psychology ............................................... 3
- PSY-241 Abnormal Psychology ....................................................... 3
- CSC-110 Intro to Computers ........................................................... 3
- HSV-140 Social Work and Social Welfare ....................................... 3
- HSV-162 Intro to Disabilities & Services ......................................... 3
- SOC-120 Marriage and Family ....................................................... 3
- SOC-200 Minority Group Relations ................................................. 3

**Complete a total of 6 credits from the following:**

- DSV-941 Practicum in HS/DS ......................................................... 3, 4, 6
- DSV-932 Internship HS/DS ............................................................. 2, 3

Remaining general requirements and elective: 3 math, 4 science, 11 social science/humanities.

Total Credits .................................................................................. 69

**Landscape and Turfgrass Technology**

(Program Suspended beginning Summer 2015)

**Associate in Applied Science**

*Location: Emmetsburg Campus*

Required Courses Credits

- AGH-106 Introduction to Horticulture ........................................... 3
- AGH-126 Woody Plant Material ..................................................... 4
- AGH-141 Equipment Operations .................................................... 3
- AGH-860 Horticulture Careers/Field Trips ....................................... 2
- AGH-117 Weed Identification .......................................................... 2
- BUS-161 Human Relations ............................................................. 3
- AGA-156 Introduction to Soils .......................................................... 3
- CSC-110 Introduction to Computers ............................................... 3
- AGH-405 Golf Course Maintenance ................................................. 3
- AGH-128 Plant Material II ............................................................... 4
- AGH-113 Turfgrass Management .................................................... 3
- AGH-173 Landscape Installation & Maintenance ............................. 3
- AGH-102 Horticulture Math ............................................................ 3
- AGH-129 Plant Material III ............................................................. 3
- COM-723 Workplace Communications ......................................... 3
- AGH-850 Occupational Experience I .............................................. 4
- MKT-140 Principles of Selling .......................................................... 3
- AGH-161 Irrigation Systems ............................................................ 3
- AGH-154 Residential Landscape Design ......................................... 3
- AGH-145 Landscape Construction ................................................... 2
- ACC-111 Introduction to Accounting .............................................. 3
- AGH-850 Occupational Experience II .......................................... 4
- AGA-283 Pesticide Application Certification .................................... 2
- AGH-256 Horticulture Chemicals .................................................... 1
- MKT-162 Retail Merchandising ........................................................ 3
- AGH-152 Landscape Design Techniques ........................................ 3
- AGH-850 Occupational Experience III ......................................... 4
- HSC-134 First Aide/CPR ................................................................. 1

Total ................................................................................................... 81

**Hotel and Restaurant Management**

**Associate in Applied Science**

*Location: Emmetsburg Campus*

Required Courses Credits

- ACC-111 Intro to Accounting .......................................................... 3
- BUS-121 Business Communications .............................................. OR
- ENG-105 Composition I ................................................................. 3
- HCM-105 Food Fundamentals ......................................................... 4
- HCM-229 Nutrition for the Life Cycle ............................................. 4
- HCM-591 Housekeeping Management .......................................... 3
- HCM-705 Hospitality Club Activities I .......................................... 1
- HCM-265 Mathematics for Hospitality .......................................... 3
- HCM-595 Front Office Ops/Night Audit .......................................... 4
- HCM-214 Culinary Media/Networking ............................................ 3
- HCM-240 Menu Planning & Design ............................................... 2
- HCM-245 Design & Layout of Foodservice Fac ................................ 3
- HCM-330 Hospitality Personnel Mgmt ........................................... 2

- HCM-141 Food Production ............................................................. 5
- HCM-450 Job Seeking Skills I ......................................................... 2
- HCM-707 Hospitality Club Activities II ......................................... 1
- HCM-938 On-the-Job Training ....................................................... 5
- HCM-104 Applied Food Service Sanitation ..................................... 4
- HCM-237 Modified Diets ............................................................... 4
- HCM-709 Hospitality Club Activities III ........................................ 1
- HCM-594 Food and Beverage Mgt ............................................... 4
- HCM-592 Convention Management ............................................. 3
- HCM-711 Hospitality Club Activities IV ........................................ 1
- HCM-310 Hospitality Law ............................................................. 3
- BUS-161 Human Relations ............................................................ 3
- CSC-110 Introduction to Computers .............................................. 3
- MTK-110 Principles of Marketing ................................................... 3
- SPC-101 Fund of Oral Communication .......................................... 3

Total ............................................................................................... 81
**Marine Service Technology**  
**Associate in Applied Science**  
*Location: Emmetsburg Campus*

**Required Courses Credits**  
MSE-153 Fundamentals of Electricity ........................................ 3  
MSE-151 Shop Safety and Procedures ........................................ 1  
BUS-161 Human Relations .................................................... 3  
MSE-147 Intro to Marine Service ........................................... 2  
MSE-148 Intro to Marine Detailing ........................................... 1  
MSE-149 Intro to Marine Rigging ............................................ 2  
MAT-772 Applied Math ...................................................... 3  
MSE-154 Intro to Power Generators ........................................ 1  
MSE-164 Marine Engines 2/4 Stroke Th ..................................... 2  
MSE-165 Marine Engines 2/4 Stroke Lab ..................................... 2  
MSE-169 Marine Drive Systems Th & Lab .................................... 3  
COM-723 Workplace Communications ......................................... 3  
MSE-159 Snowmobile Systems .............................................. 3  
MSE-932 Internship .......................................................... 6  
MSE-190 Marine Electrical Systs ............................................ 4  
MSE-173 Marine Fuel Systems ............................................... 3  
MSE-183 Personal Watercraft Systems ...................................... 3  

**Complete one of the following two options:**  
**Option 1: Advanced Business Management**  
MSE-150 Shop Management .................................................. 3  
MSE-252 Marine Advanced Driveability ..................................... 3  
ACC-111 Intro to Accounting ............................................... 3  
BUS-183 Business Law ....................................................... 3  
BUS-102 Intro to Business .................................................. 3  
+ Coordinator approved electives 18 credits minimum

**Option 2: Advanced Marine Service Technology**  
MSE-150 Shop Management .................................................. 3  
MSE-252 Marine Advanced Driveability ..................................... 3  
MSE-286 Marine Advanced Electrical ....................................... 3  
MSE-273 Marine Advanced Fuel Systems .................................... 3  
BUS-126 Business Principles ............................................... 3  
+Coordinator approved electives ........................................... 15  
Total .................................................................................... 78

**Paralegal/Legal Studies**  
**Associate in Applied Science**  
*Location: Estherville Campus*

**Required Courses Credits**  
ENG-105 Composition I ....................................................... 3  
ENG-106 Composition II ...................................................... 3  
SPC-101 Fund of Oral Comm .................................................. 3  
CSC-110 Intro to Computers .................................................. 3  
BUS-250 Principles of Real Estate .......................................... 3  
LGL-120 Introduction to Law and Paralegal ............................... 2  
LGL-250 Family Law .......................................................... 3  
LGL-154 Legal Research ...................................................... 4  
CRJ-131 Criminal Law and Procedure ..................................... 3  
LGL-180 Torts and Litigation ............................................... 3  
LGL-140 Wills, Trusts and Estate Admin .................................. 3  
LGL-161 Legal Writing ....................................................... 4  
LGL-242 Civil Procedure and Practice ..................................... 3  
LGL-210 Contract Law ....................................................... 3  
LGL-121 Law Office Software ............................................... 1  
LGL-122 Legal Ethics ......................................................... 2  
LGL-941 Legal Assistant Practicum ........................................ 2  

**Complete at least two of the following four courses:**  
ACC-261 Income Tax Accounting .......................................... 3  
LGL-205 Employment Law .................................................... 3  
LGL-200 American Trial Process ........................................... 3  
BUS-183 Business Law ....................................................... 3  
Remaining general requirements and electives: 3 math, 4science, 6 social science and 3 humanities credits  
Total Credits ........................................................................ 70

**Powersports & Power Equipment Technology**  
**Associate in Applied Science**  
*Location: Emmetsburg Campus*

**Required Courses Credits**  
MSE-143 Small Engines Theory ............................................... 3  
MSE-146 Small Engines Lab .................................................. 3  
MOT-153 Fundamentals of Electricity ....................................... 3  
MSE-155 Drive System Fundamentals ....................................... 3  
BUS-161 Human Relations .................................................... 3  
MAT-772 Applied Math ........................................................ 3  
MOT-151 Shop Safety and Procedures ..................................... 1  
HSC-134 First Aid/CPR ....................................................... 3  
MOT-131 Motorcycle Engines 2/4 Stroke .................................. 3  
MOT-129 Motorcycle Eng 2/4 Stroke Lab ................................... 2  
MOT-146 Motorcycle Ignit & Elect Systs ................................... 3  
MOT-144 Drive Systems/Chassis/Susp ...................................... 4  
WEL-334 Trade & Industry Welding ........................................ 2  
COM-723 Workplace Communications ..................................... 3  
MOT-139 Motorcycle Fuel Systems ......................................... 3  
MOT-910 Cooperative Work Experience .................................. 3  
+ Coordinator approved electives ......................................... 18 credits minimum

**Option 2: Advanced Motorcycle & Small Engine**

**Required Courses Credits**

**Powersports & Power Equipment Technology**  
**Associate in Applied Science**  
*Location: Emmetsburg Campus*

**Required Courses Credits**  
MSE-143 Small Engines Theory ............................................... 3  
MSE-146 Small Engines Lab .................................................. 3  
MOT-153 Fundamentals of Electricity ....................................... 3  
MSE-155 Drive System Fundamentals ....................................... 3  
BUS-161 Human Relations .................................................... 3  
MAT-772 Applied Math ........................................................ 3  
MOT-151 Shop Safety and Procedures ..................................... 1  
HSC-134 First Aid/CPR ....................................................... 3  
MOT-131 Motorcycle Engines 2/4 Stroke .................................. 3  
MOT-129 Motorcycle Eng 2/4 Stroke Lab ................................... 2  
MOT-146 Motorcycle Ignit & Elect Systs ................................... 3  
MOT-144 Drive Systems/Chassis/Susp ...................................... 4  
WEL-334 Trade & Industry Welding ........................................ 2  
COM-723 Workplace Communications ..................................... 3  
MOT-139 Motorcycle Fuel Systems ......................................... 3  
MOT-910 Cooperative Work Experience .................................. 3  
+ Coordinator approved electives ......................................... 18 credits minimum

**Option 2: Advanced Motorcycle & Small Engine**

**Required Courses Credits**

**Sales and Marketing Management**  
**Associate in Applied Science**  
*Location: Emmetsburg Campus*

**Required Courses Credits**  
ENG-105 Composition I ....................................................... 3  
SPC-101 Fund of Oral Comm .................................................. 3  
CSC-110 Intro to Computers .................................................. 3  
BUS-183 Business Law ....................................................... 3  
SPC-101 Fund of Oral Communication ...................................... 3  
MKT-162 Retail Merchandising ............................................. 3  
MKT-142 Consumer Behavior ............................................... 3  
MKT-155 Visual Merchandising .............................................. 4  
MKT-938 On-the-Job Training ............................................... 2  
MKT-140 Principles of Selling .............................................. 3  
MGT-101 Principles of Management ....................................... 3  
BUS-932 Practicum ............................................................ 5  
MKT-110 Principles of Marketing .......................................... 3  
MKT-150 Principles of Advertising ........................................ 3  
MKT-162 Retail Merchandising .............................................. 3  

Total Credits ........................................................................ 77
**Substance Abuse Counseling**

**Associate in Applied Science**

**Location:** Estherville

**Required Courses Credits**

- ENG-105 Composition I ........................................ 3
- CSC-110 Intro to Computers .................................... 3
- SPC-101 Fund of Oral Comm .................................. 3
- HSV-284 Case Management .................................... 3
- HSV-225 Counseling Techniques ............................... OR
- PSY-121 Developmental Psychology .......................... 3
- DSV-160 Counseling Skills (4cr) ............................. 4 OR
- PSY-111 Introduction to Psychology ........................... 3
- CRJ-207 Drug Use & Abuse .................................... 3
- PHI-105 Introduction to Ethics ................................ 3
- SOC-200 Minority Group Relations ............................ 3
- PSY-241 Abnormal Psychology ............................... 3
- SOC-115 or SOC-120 or SOC-186 ............................. 3
- HSV-293 Substance Abuse and Treatment Planning ........ 3
- HSV-901 Substance Abuse Practicum I ..................... 3
- HSV-902 Substance Abuse Practicum II ..................... 4
- Remaining general requirements and electives: math 6, science 8, social science 3, humanities 6-7.

Total Credits .................................................................. 68

**Surgical Technology**

**Associate in Applied Science**

**Location:** Spencer Campus

The Surgical Technology Diploma and AAS Degree Programs, Spencer Campus, are accredited by the Commission on Accreditation of Allied Health Education Programs (www.caahep.org) upon the recommendation of the Accreditation Review Committee on Education Surgical Technology Surgical Assisting (ARCS T). Commission on Accreditation of Allied Health Education Programs (CAASPP) 1361 Park Street Clearwater, FL. 33756

Phone: 727-210-2350

Accreditation Review Committee on Education in Surgical Technology Surgical Assisting (ARCS T).

6 W. Dry Creek Circle, Suite #110 Littleton, CO 80120

Phone: 303-694-9262

**Required Courses Credits**

- BIO-168 Human Anatomy & Phys .............................. 4
- BIO-173 Human Anatomy & Phys 2 .......................... 4
- BUS-161 Human Relations ..................................... 3
- SUR-430 Microbiology – Surgical Tech ..................... 2
- SUR-129 Surgical Foundations ............................... 6
- SUR-131 Surgical Foundations Lab .......................... 4
- SUR-131 Surgical Techniques Lab ............................ 4
- SUR-123 Patient Care Concepts ............................... 2
- HSC-114 Medical Terminology ............................... 3
- SUR-223 Surgical Procedures ................................. 6
- SUR-420 Pharmacology for Surg Tech ..................... 2
- ADM-220 Career Development ............................... 1
- SUR-227 Surgical FoundationsLab ........................... 2
- SUR-517 Surgical Procedures Practicum I ................. 3
- ENG-105 Composition I ....................................... 3
- SUR-519 Surgical Technology Practicum II ............... 4
- COM-725 Workplace Communications ..................... 2
- CSC-110 Intro to Computers ................................. 3
- PSY-111 Intro to Psychology .................................. 3
- SOC-110 Intro to Sociology ................................... 3
- MAT-110 Math for Liberal Arts .............................. 3
- SPC-101 Fundamentals of Oral Communications .......... 3
- + Coordinator approved electives ........................... 9
- Humanities Elective ............................................ 3

Total ............................................................................. 76

**Veterinary Technician**

**Associate in Applied Science**

**Location:** Emmetsburg Campus

**Required Courses Credits**

- AGV-119 Veterinary Medical Terminology ................ 2
- AGV-118 Vet Tech Animal & P I ............................. 4
- AGV-189 Small Animal Clinic Observation ............... 2
- AGV-103 Introduction to Veterinary Science .............. 3
- AGV-150 Procedures for Vet Technicians .................. 3
- SPC-101 Fund. of Oral Communications .................... 3
- MAT-110 Math for Liberal Arts .............................. 3
- AGV-167 Vet Clinic Pathology I ............................. 3
- AGV-161 Animal Nursing I .................................... 3
- AGV-145 Animal Nutrition ..................................... 3
- AGV-112 Vet Tech Animal A & P II ......................... 4
- AGV-183 Large Animal Clinic Observation ............... 2
- BUS-161 Human Relations .................................... 3
- AGV-932 Internship ............................................. 4
- AGV-162 Animal Nursing II .................................... 3
- AGV-168 Vet Clinic Pathology II ............................ 3
- BIO-186 Microbiology ......................................... 4
- AGV-158 Veterinary Law and Ethics ........................ 3
- ENG-105 Composition I ....................................... 3
- AGC-210 Employment Seminar ............................. 1
- AGV-177 Animal Nursing III ................................... 4
- AGV-188 Vet Clinic Pathology III ........................... 4
- AGV-152 Computer Apps ...................................... 3
- PSY-111 Intro to Psychology or other Social Science .... 3
- HSC-151 Dosage Calculations ............................... 1
- AGV-140 Veterinary Technology Pharmacology .......... 3

Total ............................................................................. 77

**Water Quality & Sustainable Aquatic Resources**

**Associate in Applied Science**

**Location:** Estherville Campus

**Required Courses Credits**

- SER-101 Energy, Sustainability & the Environment ...... 3
- SER-124 Ind. Safety & Workplace Env. ..................... 1
- SER-114 Blueprint Reading .................................... 1
- SER-116 Career Seminar ....................................... 1
- ELE-119 Basic Electricity I .................................... 4
- EVS-112 Biological Science for Water Quality .......... 4
- MAT-101 Intermediate Algebra ............................... OR
- MAT-743 Technical Mathematics ............................ 3
- EVS-173 Intro to Water Resources ........................... 3
- ELE-136 Basic Electricity II ................................... 4
- ELE-226 Electric Motors & Generators ..................... 4
- BUS-121 Business Communications ....................... 3
- EVS-113 Physical Science for Water Quality .......... 4
- EVS-946 Water Quality Internship .......................... 6
- EVS-224 Water Dis. & Wastewater Coll. Sys. .......... 4
- EVS-214 Water Quality Analysis ............................ 4
- ELE-182 Basic Electronics .................................... 4
- SER-230 Main. & Repair of Pumps & Valves ............... 3
- CSC-110 Intro to Computers .................................. 3
- EVS-205 Water Quality Seminar ............................ 1
- BUS-161 Human Relations .................................... 3
- EVS-274 Water Processing .................................... 5
- EVS-284 Wastewater Treatment ............................. 5

33
Web Development & Design  
Associate in Applied Science  
Location: Estherville Campus

Program requirements:
- CIS-204 Web Programming .................... 3
- GRA-121 Digital Drawing ....................... 3
- CSC-110 Intro to Computers ................... 3
- GRA-140 Digital Imaging ...................... 3
- MKT-150 Principles of Advertising (3cr.) OR MKT-110 Principles of Marketing ............ 3
- GRA-234 Dreamweaver Level I ................. 3
- GRA-932 Web Development Internship ....... 4
- GRA-235 Dreamweaver Level II ............... 3
- GRA-162 Web Page Graphics .................. 3
- JOU-173 Digital Photography .................. 3
- GRA-228 Flash ................................ 3
- GRA-166 Web Animations ..................... 3
- Remaining general requirements and electives
- Total Credits .................................. 69

Wind Energy and Turbine Technology
Associate in Applied Science  
Location: Estherville Campus

Required Courses Credits
- WTT-115 Field Training and Project Operations ........... 4
- ELE-119 Basic Electricity 1 ................................ 4
- WTT-104 Introduction to Wind Energy .................. 4
- SER-124 Industrial Safety & Workplace Env. .......... 1
- SER-114 Blueprint Reading .......................... 1
- SER-116 Career Seminar ............................ 1
- MAT-101 Intermediate Algebra ...................... 3
- PHY-184 Applied Physics ............................ 4
- BUS-161 Human Relations ........................... 3
- ELE-136 Basic Electricity II ....................... 4

- ELE-182 Basic Electronics .......................... 4
- WTT-133 Wind Turbine Mechanical Sysytems .......... 3
- EGT-146 Hydraulics ................................. 3
- ELE-226 Electric Motors and Generators ............ 4
- WTT-206 High Voltage Awareness & Fall Rescue Safety ... 1
- WTT-932 Wind Turbine Internship .................. 5
- BUS-121 Business Communications ................ 3
- NET-148 Basic Networking and Comp Tech .......... 3
- ELE-183 Electrical Practical Applications .......... 4
- WTT-225 Data Acquisition & Assessment ............ 4
- ELE-242 Programmable Logic Control Sysytems ...... 4
- WTT-204 Wind Turbine Siting ..................... 4
- WTT-216 Power Generation and Transmission .......... 3
- MGT-101 Principles of Management ................ 3
- + Coordinator approved electives ................... 4
- Total ............................................. 81
## Vocational Programs

**VOCATIONAL PROGRAMS**

Vocational programs are those which include at least the equivalent of two full-time semesters but are less than two academic years in length. A diploma is awarded upon successful completion.

**Programs are available in the following areas:**
- Accounting
- Auto Collision and Paint Technology
- Business Specialist
- Construction Technology
- Early Childhood Education
- Graphic Specialist
- Hotel & Restaurant Management
- Marine Service Technology
- Massage Therapy
- Medical Assistant Specialist
- Medical Office Technology
- Motorcycle and Small Engine Technology
- Office Specialist
- Parts Sales and Inventory Control
- Pharmacy Technician
- Photography Specialist
- Powersports & Power Equipment Technology
- Practical Nursing
- Sales and Marketing
- Surgical Technology
- Welding
- Wind Energy and Turbine Technology

### Accounting

**Diploma**

**Location: 5 Campus/Online**

<table>
<thead>
<tr>
<th>Required Courses Credits</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC-131 Principles of Accounting I</td>
<td>4</td>
</tr>
<tr>
<td>ACC-161 Payroll Accounting</td>
<td>3</td>
</tr>
<tr>
<td>ACC-132 Principles of Accounting II</td>
<td>4</td>
</tr>
<tr>
<td>ACC-310 Computer Accounting</td>
<td>2</td>
</tr>
<tr>
<td>CSC-110 Introduction to Computers</td>
<td>3</td>
</tr>
<tr>
<td>BUS-175 Business Seminar I</td>
<td>1</td>
</tr>
<tr>
<td>SPC-101 Fund of Oral Communication</td>
<td>3</td>
</tr>
<tr>
<td>ENG-105 Composition I</td>
<td>3</td>
</tr>
<tr>
<td>ACC-261 Income Tax Accounting</td>
<td>3</td>
</tr>
<tr>
<td>Approved Mathematics Elective</td>
<td>3</td>
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<tr>
<td>Approved Social Science Elective</td>
<td>3</td>
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<tr>
<td>Approved Humanities Elective</td>
<td>3</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>35</strong></td>
</tr>
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</table>

### Auto Collision and Paint Technology

**Diploma**

**Location: Emmetsburg Campus**

<table>
<thead>
<tr>
<th>Required Courses Credits</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>CRR-302 Introduction to Collision Repair</td>
<td>2</td>
</tr>
<tr>
<td>WEL-334 Trade &amp; Industry Welding</td>
<td>2</td>
</tr>
<tr>
<td>BUS-160 Human Relations</td>
<td>2</td>
</tr>
<tr>
<td>CRR-326 Sheet Metal Repair Th</td>
<td>3</td>
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<tr>
<td>CRR-327 Sheet Metal Repair Lab</td>
<td>2</td>
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<tr>
<td>CRR-421 Non-Structural Repair Th</td>
<td>3</td>
</tr>
<tr>
<td>CRR-422 Non-Structural Repair Lab</td>
<td>2</td>
</tr>
<tr>
<td>CRR-203 Plastic Repairs Th</td>
<td>2</td>
</tr>
<tr>
<td>CRR-742 Estimating Theory</td>
<td>2</td>
</tr>
<tr>
<td>CRR-749 Estimating Lab</td>
<td>1</td>
</tr>
<tr>
<td>CRR-351 Collision Lab I</td>
<td>2</td>
</tr>
<tr>
<td>CRR-808 Refinishing I Theory</td>
<td>1</td>
</tr>
<tr>
<td>CRR-809 Refinishing I Lab</td>
<td>3</td>
</tr>
<tr>
<td>COM-725 Workplace Communications</td>
<td>2</td>
</tr>
<tr>
<td>CRR-908 Cooperative Education</td>
<td>2</td>
</tr>
<tr>
<td>MAT-770 Applied Math</td>
<td>2</td>
</tr>
<tr>
<td>CRR-540 Structural Repair Th</td>
<td>3</td>
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<tr>
<td>CRR-541 Structural Repair Lab</td>
<td>2</td>
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<tr>
<td>CRR-606 Mechanical Repairs Th</td>
<td>2</td>
</tr>
<tr>
<td>CRR-607 Mechanical Repairs Lab</td>
<td>1</td>
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<tr>
<td>CRR-838 Refinishing II Theory</td>
<td>2</td>
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<tr>
<td>CRR-839 Refinishing II Lab</td>
<td>3</td>
</tr>
<tr>
<td>CRR-352 Collision Repair Lab II</td>
<td>2</td>
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<tr>
<td><strong>Total</strong></td>
<td><strong>42</strong></td>
</tr>
</tbody>
</table>

### Business Specialist

**Diploma**

**Location: Emmetsburg Campus**

<table>
<thead>
<tr>
<th>Required Courses Credits</th>
<th>Credits</th>
</tr>
</thead>
<tbody>
<tr>
<td>ACC-111 Intro to Accounting</td>
<td>3</td>
</tr>
<tr>
<td>ACC-161 Payroll Accounting</td>
<td>3</td>
</tr>
<tr>
<td>ACC-310 Computer Accounting</td>
<td>2</td>
</tr>
<tr>
<td>ADM-254 Business Professionalism</td>
<td>1</td>
</tr>
<tr>
<td>ADM-255 Business Professionalism II</td>
<td>1</td>
</tr>
<tr>
<td>ADM-132 Business Math &amp; Calculators</td>
<td>2</td>
</tr>
<tr>
<td>OR BUS-131 or BUS-110</td>
<td></td>
</tr>
<tr>
<td>ADM-116 Keyboarding II</td>
<td>3</td>
</tr>
<tr>
<td>OR ADM-123</td>
<td></td>
</tr>
<tr>
<td>ADM-162 Office Procedures</td>
<td>3</td>
</tr>
<tr>
<td>BCA-134 Word Processing</td>
<td>3</td>
</tr>
<tr>
<td>BUS-160 Human Relations</td>
<td>2</td>
</tr>
<tr>
<td>OR BUS-161</td>
<td></td>
</tr>
<tr>
<td>BCA-185 Beginning Web Page Dev.</td>
<td>3</td>
</tr>
<tr>
<td>CSC-110 Intro to Computers</td>
<td>3</td>
</tr>
<tr>
<td>ENG-105 Composition I</td>
<td>3</td>
</tr>
<tr>
<td>SPC-101 Fund of Oral Communication</td>
<td>3</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>35</strong></td>
</tr>
</tbody>
</table>

### Construction Technology

**Diploma**

**Location: Emmetsburg Campus**

<table>
<thead>
<tr>
<th>Required Courses Credits</th>
<th>Credits</th>
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<tbody>
<tr>
<td>CON-113 Construction Printhead</td>
<td>2</td>
</tr>
<tr>
<td>CON-195 Foundations and Concrete</td>
<td>5</td>
</tr>
<tr>
<td>CON-201 Framing Techniques and Lab I</td>
<td>2</td>
</tr>
<tr>
<td>CON-218 Framing Techniques and Lab II</td>
<td>4</td>
</tr>
<tr>
<td>CON-300 Optimum Value Engineering</td>
<td>1</td>
</tr>
<tr>
<td>CON-238 Techniques of Exterior Covering</td>
<td>4</td>
</tr>
<tr>
<td>CON-217 Exterior Finishing</td>
<td>3</td>
</tr>
<tr>
<td>CON-106 Construction Welding</td>
<td>OR</td>
</tr>
<tr>
<td>CON-120 Construction Estimating</td>
<td>1</td>
</tr>
<tr>
<td>CON-229 Installation of Interior Finishing</td>
<td>3</td>
</tr>
<tr>
<td>CON-228 Methods of Interior Finishing</td>
<td>3</td>
</tr>
<tr>
<td>ENG-105 Composition I (3cr.)</td>
<td>OR</td>
</tr>
<tr>
<td>COM-725 Workplace Communications</td>
<td>2</td>
</tr>
<tr>
<td>MAT-770 Applied Math</td>
<td>2</td>
</tr>
<tr>
<td>BUS-161 Human Relations</td>
<td>3</td>
</tr>
<tr>
<td>HSC-134 First Aid/CPR</td>
<td>1</td>
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<tr>
<td>CON-431 Internship</td>
<td>6</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>42</strong></td>
</tr>
</tbody>
</table>
Early Childhood Education
Diploma
Location: Emmetsburg Campus

To advance in the program course sequence or to graduate a student may have no grade lower than 'C' in any Early Childhood Education (ECE) course or FLS-104.

Required Courses Credits
ENG-105 Composition I ..................................3
ECE-221 Infant Toddler Care & Education ..........3
ECE-170 Child Growth and Development ..........3
ECE-110 Early Childhood Professionals I ...........1
ECE-112 Portfolio Development I ......................1
ECE-133 Child Health, Safety and Nutrition .........3
ECE-103 Intro to Early Childhood Education ..........3
ECE-111 Early Childhood Professionals II ...........1
ECE-158 Early Childhood Curriculum I ..............3
ECE-159 Early Childhood Curriculum II .............3
ECE-262 Early Childhood Field Experience ..........3
ECE-243 Early Childhood Guidance ..................3
FLS-104 Spanish for Professionals ..................2
SPC-101 Fund of Oral Communication .................3
Total ..........................................................35

Graphic Specialist
Diploma
Location: Estherville Campus

Required Courses Credits
MMS-101 Mass Media ...................................3
GRA-118 Electronic Publishing ........................3
GRA-140 Digital Imaging ................................3
GRA-141 Digital Imaging II ............................3
GRA-188 Advertising Layout & Composition ........3
JOU-173 Digital Photography ........................3
ENG-105 Composition I ................................3
ART-127 Digital Illustration ...........................3
GRA-121 Digital Drawing ...............................3
GRA-932 Internship ....................................2
Approved Mathematics Elective .....................3
+ Coordinator approved elective .....................3
Total ..........................................................35

Hotel & Restaurant Management
Diploma
Location: Emmetsburg Campus

Required Courses Credits
ACC-111 Intro to Accounting ..........................3
BUS-121 Business Communications ...................OR
ENG-105 Composition I ................................3
HCM-105 Food Fundamentals ..........................4
HCM-229 Nutrition for the Life Cycle .................4
HCM-319 Intro to the Hospitality Field ...............OR
HCM-591 Housekeeping Management .................3
HCM-705 Hospitality Club Activities I ...............3
HCM-265 Mathematics for Hospitality ...............3
HCM-595 Front Office Ops/Night Audit ...............4
HCM-141 Food Production ................................5
HCM-450 Job Seeking Skills I .........................2
HCM-707 Hospitality Club Activities II ...............1
HCM-938 On-the-Job Training .........................5
BUS-161 Human Relations .............................3
CSC-110 Introduction to Computers ....................3
Total ..........................................................44

Marine Service Technology
Diploma
Location: Emmetsburg Campus

Required Courses Credits
MSE-147 Introduction to Marine Service ..............2
MSE-148 Introduction to Marine Detailing ............1
MSE-149 Introduction to Marine Rigging .............2
MSE-153 Fund of Electricity ..........................3
MSE-154 Intro to Power Generator ....................1
MSE-151 Shop Safety and Procedures ................1
BUS-161 Human Relations ............................3
MAT-772 Applied Math ................................3
MSE-164 Marine Engines 2/4 Stroke Th .............2
MSE-165 Marine Engines 2/4 Stroke Lab .............2
MSE-169 Marine Drive Systems Th & Lab .............3
COM-723 Workplace Communications ................3
MSE-159 Snowmobile Systems .......................3
MSE-932 Internship ....................................6
MSE-190 Marine Electrical Systems Th & Lab ........4
MSE-173 Marine Fuel Systems .......................3
MSE-183 Personal Watercraft Systems ...............3
Total ..........................................................46

Massage Therapy
Diploma
Location: Spencer Campus/Algona Campus

Required Courses Credits
MST-103 Intro to Swedish Massage ....................3
HSC-114 Medical Terminology .......................3
MST-152 Chair Massage ................................1
MST-101 Health and Wellness .......................1
BIO163 Essentials of Anatomy & Phys ...............4
COM-725 Workplace Communications ................2
MST-113 Kinesiology/Anatomy & Movement for Massage 3.3
MST-123 Sports Massage ............................3
MST-138 Spa Bodywork 1 .............................3
MST-121 Reflexology ...................................1
MST-110 Pathology for Massage Therapy ............2
MST-149 Pregnancy/Infant Massage ..................1
MST-141 Geriatric Massage ..........................1
MST-143 Intermediate Massage ......................3
MST-153 Deep Tissue Massage .......................3
MST-151 Business – Massage Therapy ..............1
BUS-160 Human Relations ............................2
MST-810 Clinic ..........................................1
MST-159 Ethics – Massage Therapy ..................1
Total ..........................................................39

Medical Assistant
Diploma
Location: Spencer Campus

The Medical Assistant Diploma and AAS Degree Programs, Spencer Campus, are accredited by the Commission on Accreditation of Allied Health Education Programs (CAAHEP) upon the recommendation of the Curriculum Review Board of the American Association of Medical Assistants Endowment (AAMAE). Commission on Accreditation of Allied Health Education Programs (CAAHEP)

1361 Park Street Clearwater, FL 33756
Phone: 727-210-2350

Required Courses Credits
Medical Office Technology
Diploma
Location: Spencer Campus

Required Courses Credits
COM-725 Workplace Communications ................................................. 2
HSC-114 Medical Terminology ................................................. 3
BUS-110 Business Math and Calculators ................................................. 3
CSC-110 Introduction to Computers ................................................. 3
HIT-601 Medical Transcription ................................................. 2
MAP-128 Automated Medical Office ................................................. 2
BIO-168 Anatomy & Physiology I ................................................. 4
BIO-173 Anatomy & Physiology II ................................................. 4
HSC-217 Introduction to Pathology ................................................. 3
HSC-217 Medical Office Management I ................................................. 3
SN-141 Medical Insurance ................................................. 3
HIT-244 Basic CPT Coding ................................................. 3
HIT-245 Basic ICD-9-CM Coding ................................................. 3
ADM-220 Career Development Skills ................................................. 1
MAP-512 Medical Assisting Pharmacology ................................................. 2
Total ....................................................................................... 41

Office Specialist
Diploma
Location: Estherville Campus

Required Courses Credits
ACC-111 Intro to Accounting ................................................. 3
ACC-161 Payroll Accounting ................................................. 3
ACC-310 Computer Accounting ................................................. 2
ADM-254 Business Professionalism ................................................. 1
ADM-255 Business Professionalism II ................................................. 1
ADM-132 Business Math & Calculators ................................................. 2
ADM-116 Keyboarding II ................................................. 3
ADM-936 Occupational Experience (5 cr.) OR
ADM-941 Practicum (5cr.) OR
BUS-938 Office on the Job Training (5 cr.) ................................................. 3
ADM-162 Office Procedures ................................................. 3
BCA-134 Word Processing ................................................. 3
BCA-185 Beginning Web Page Development ................................................. 3
CSC-110 Introduction to Computers ................................................. 3
ENG-105 Composition I ................................................. 3
SPC-101 Fund of Oral Communication ................................................. 3
Total ..................................................................................... 40

Parts Sales and Inventory Control
Diploma
Location: Emmetsburg Campus

Required Courses Credits
ACC-111 Intro to Accounting ................................................. 3
MGT-101 Principles of Management ................................................. 3
BUS-932 Practicum ................................................. 5
BUS-161 Human Relations ................................................. 3
CSC-110 Introduction to Computers ................................................. 3
MKT-140 Principles of Selling ................................................. 3
MKT-150 Principles of Advertising ................................................. 3
COM-725 Workplace Communications ................................................. 2
PAR-113 Parts Catalog and Lab ................................................. 4
PAR-123 Parts System and Lab ................................................. 4
PAR-124 Inventory Control and Lab ................................................. 3
MAT-772 Applied Math ................................................. 3
Total ..................................................................................... 41

Pharmacy Technician
(Program suspended beginning Fall 2015)
Diploma
Location: Spencer Campus

Required Courses Credits
BIO-163 Essentials of Anatomy & Phys ................................................. 4
PHR-107 Pharmacy Tech I ................................................. 7
PHR-122 Pharmacy Tech Career Development ................................................. 1
CSC-110 Introduction to Computers ................................................. 3
PHR-117 Pharmacy Tech II ................................................. 7
PHR-122 Pharmacy Tech Career Development ................................................. 1
SPC-101 Fund of Oral Communication ................................................. 3
CHM-151 College Chemistry I ................................................. 4
ENG-105 Composition I ................................................. 3
PHR-941 Practicum ................................................. 3
PHR-121 Pharmacy Technician Seminar ................................................. 1
BUS-161 Human Relations ................................................. 3
Total ..................................................................................... 40

Photography Specialist
Diploma
Location: Estherville Campus

Required Courses Credits
JOU-171 Introduction to Photography ................................................. 3
JOU-173 Digital Photography ................................................. 3
ENG-105 Composition I ................................................. 3
SPC-101 Fund of Oral Communication ................................................. 3
BUS-161 Human Relations ................................................. 3
JOU-177 News, Forensics & Advertising Photography ................................................. 3
ART-286 Photography: Portraiture ................................................. 3
JOU-180 Digital Imaging for Professionals OR
GRA-141 Digital Imaging II ................................................. 3
MGT-110 Small Business Management OR
MGT-101 Principles of Management ................................................. 3
MKT-150 Principles of Advertising OR
MKT-140 Principles of Selling ................................................. 3
JOU-941 Practicum ................................................. 2
Approved Science Elective ................................................. 4
Total ..................................................................................... 36

Powersports & Power Equipment Technology
Diploma
Location: Emmetsburg Campus

Required Courses Credits
MSE-143 Small Engines Theory ................................................. 3
MSE-146 Small Engines Lab .............................................. 3
MOT-153 Fundamentals of Electricity ............................. 3
MSE-155 Drive System Fundamentals ............................. 3
BUS-161 Human Relations ............................................. 3
MAT-772 Applied Math ............................................... 3
MSE-151 Shop Safety and Procedures ............................. 1
HSC-134 First Aid/CPR .................................................. 1
MOT-131 Motorcycle Engines 2/4 Stroke Theory .............. 3
MOT-129 Motorcycle Eng 2/4 Stroke Lab ......................... 2
MOT-144 Drive Systems/Chassis/Suspension ................. 4
WEL-334 Trade & Industry Welding ............................. 2
COM-723 Workplace Communications .......................... 3
MOT-139 Motorcycle Fuel Systems ............................... 3
MOT-146 Motorcycle Ignition & Elec System ................. 3
MOT-910 Cooperative Work Experience ....................... 4
Total ........................................................................... 44

Practical Nursing
Diploma
Location: Emmetsburg Campus

Admission to the Practical Nursing program follows the guidelines outlined in the Prospective Nursing Student Bulletin and/or Nursing Program Student Handbook. All coursework must be completed with a grade of “C” or higher.

Graduates are eligible to take the PN NCLEX licensure exam at the end of the corresponding program. The nursing program is approved by the Iowa Lakes Community College Board of Trustees, the State Board of Education and the Iowa Board of Nursing.

The following are considered prerequisites & must be taken BEFORE enrolling in any Nursing (PNN courses).
1. Successfully complete a state approved 75 hour Certified Nurse Aide course (HSC-172) or complete a non-credit Nurse Aide course through Continuing Education.
2. A high school computer applications course or a college computer course CSC-101 Computer Familiarization

Required Courses Credits
HSC-186 Human Anatomy & Physiology.......................... 3
HSC-163 Nutrition OR BIO-151 Nutrition ..................... 3
BIO-168 Human Anatomy and Physiology I and Lab ....... 4
PNN-664 Practical Nursing I ........................................... 4
PNN-665 Practical Nursing I Clinical ............................. 1
HSC-153 Concepts in Pharmacology ............................. 3
HSC-152 Dosage Calculations ...................................... 1
BIO-173 Human Anatomy and Physiology II and Lab ....... 4
PNN-662 Practical Nursing II ....................................... 7
PNN-666 Practical Nursing II Clinical .......................... 3
PNN-663 Practical Nursing III ....................................... 4
PNN-667 Practical Nursing III Preceptorship ................. 2
COM-725 Workplace Communications ........................ 2
Total ........................................................................... 42

Sales and Marketing
Diploma
Location: Emmetsburg Campus

Required Courses Credits
ACC-111 Intro to Accounting ......................................... 3
MKT-290 Professionalism: Dex/DECA .......................... 1
MKT-291 Professionalism II: Dex/DECA ....................... 1
BUS-175 Business Seminar I ........................................ 1
MKT-155 Visual Merchandising .................................... 4
MKT-938 On-the-job Training ..................................... 2
MG-101 Principles of Management ............................ 3

Surgical Technology
Diploma
Location: Spencer Campus

The Surgical Technology Diploma and AAS Degree Programs, Spencer Campus, are accredited by the Commission on Accreditation of Allied Health Education Programs (www.caahep.org) upon the recommendation of the Accreditation Review Committee on Education Surgical Technology and Surgical Assisting. (ARCT). Commission on Accreditation of Allied Health Education Programs (CAAHEP)

Required Courses Credits
BIO-163 Essentials of Anatomy and Physiology .............. 4
COM-725 Workplace Communications ....................... 2
SUR-430 Microbiology - Surgical Tech ........................ 2
SUR-131 Surgical Foundations Lab ............................. 4
SUR-129 Surgical Foundations ................................... 6
SUR-123 Patient Care Concepts .................................. 2
HSC-114 Medical Terminology .................................... 3
SUR-223 Surgical Procedures ................................... 6
SUR-420 Pharmacology for Surgical Tech .................... 2
ADM-220 Career Development .................................... 1
SUR-227 Surgical Procedures Lab .............................. 2
SUR-517 Surgical Procedures Practicum I ........................ 3
SUR-519 Surgical Technology Practicum II ..................... 4
BUS-161 Human Relations ........................................... 3
Total ........................................................................... 44

Welding
Diploma
Location: Emmetsburg Campus

Required Courses Credits
COM-725 Workplace Communications ....................... 2
MAT-770 Applied Math ............................................... 2
BUS-161 Human Relations ........................................... 3
WEL-121 Oxy Fuel Welding and Cutting ....................... 4
WEL-179 Special Processes/Procedures ....................... 3
WEL-274 SMAW I, SENSE I ........................................ 3
WEL-275 SMAW II ..................................................... 3
WEL-244 GMAW Short Circuit, SENSE I ...................... 2
WEL-245 GMAW Spray Transfer, SENSE I ................... 2
WEL-251 GTAW Carbon Steel, SENSE I ....................... 2
WEL-252 GTAW Aluminum, SENSE I ......................... 1
WEL-253 GTAW Stainless Steel, SENSE I .................... 1
WEL-228 Welding Safety/Health, SENSE I .................... 1
WEL-254 Inspection/Test Princ., SENSE I ..................... 1
WEL-233 Print Read/Sym. Inter., SENSE I ..................... 3
WEL-310 Pipe Welding ............................................... 5
Total ........................................................................... 38
Wind Energy and Turbine Technology
Diploma
Location: Estherville Campus

Required Courses Credits
WTT-115 Field Training and Project Operations .................4
ELE-119 Basic Electricity I ........................................4
WTT-104 Introduction to Wind Energy .............................4
NET-148 Basic Networking ..........................................3
MAT-101 Intermediate Algebra (3 cr.) .............................4
MAT-102 Intermediate Algebra .....................................2
BUS-161 Human Relations .........................................3
PHY-184 Applied Physics ...........................................4
WTT-133 Wind Turbine Mechanical Systems ..................3
ELE-136 Basic Electricity II ........................................4
EGT-146 Basic Hydraulics ..........................................3
ELE-226 Electric Motors and Generators .....................4
WTT-206 High Voltage Awareness & Fall Rescue Safety ...1
WTT-932 Wind Turbine Internship ...............................5
SER-116 Career Seminar ...........................................1
SER-124 Ind. Safety & Workplace Env. .........................1
BUS-121 Business Communications ............................3
Total .............................................................................50

Certificate Programs

The certificates listed below are designed to enhance existing degrees. These certificates may not provide an individual without prior education with all the course work necessary for entry into their desired career field. For more information please contact the program advisor.

Certified Professional Bookkeeper
Certificate
Location: Online

Required Courses Credits
ACC-131 Principles of Accounting I ............................4
ACC-132 Principles of Accounting II ...........................4
ACC-702 Certified Bookkeeper Review .......................4
ACC-221 Cost Accounting ........................................OR
ACC-261 Income Tax Accounting ................................3
CSC-110 Introduction to Computers ............................3
ACC-311 Computer Accounting (3 cr.) ........................OR
ACC-310 Computer Accounting ................................2
BUS-175 Business Seminar I ......................................1
ACC-161 Payroll Accounting ......................................3
BUS-121 Business Communications (3cr.) .................OR
BUS-115 Business Communications .........................2
ACC-929 Individual Projects ..................................2
Total .............................................................................28

Welding
Certificate
Location: Emmetsburg Campus

Required Courses Credits
BUS-161 Human Relations ..........................................3
WEL-121 Oxy Fuel Welding and Cutting ....................4
WEL-275 SMAW II, SENSE I ......................................3
WEL-244 GMAW Short Circuit, SENSE I ....................2
WEL-245 GMAW Spray Transfer, SENSE I ................2
WEL-251 GTAW Carbon Steel, SENSE I ....................2
WEL-252 GTAW Aluminum, SENSE I .......................1
WEL-253 GTAW Stainless Steel, SENSE I .................1
WEL-179 Special Processes/Procedures .....................3
Total .............................................................................21
Course Numbers

The Iowa community colleges have a common course numbering system for all credit courses offered by Iowa community colleges. The numbering system facilitates transfer and articulation processes for Iowa community college students.

<table>
<thead>
<tr>
<th>A B C</th>
<th>1 2 3</th>
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<tbody>
<tr>
<td>Discipline prefix of program or subject</td>
<td>development courses</td>
</tr>
<tr>
<td>000-099</td>
<td>courses intended to meet specific requirements for certificates, diplomas, and degrees in career and technical and transfer programs</td>
</tr>
<tr>
<td>900-999</td>
<td>generic focus courses such as special topics, OJT, internships</td>
</tr>
</tbody>
</table>

Key to Course Prefixes

ACC Accounting  ECE Early Childhood Education  MSE Marine Service Technology
ADM Administrative Assistant  ECN Economics  MST Massage Therapy
ADN Associate Degree Nursing  EDU Education  MUA Music-Applied
AGA Agriculture-Agronomy  EGT Engineering Technology  MUS General Music
AGB Agriculture-Farm Management  ELE Electrical Technology  NET Computer Networking
AGC Agriculture-Comprehensive  EMS Emergency Medical Services  PAR Parts Dist. & Inv. Control
AGH Agriculture-Horticulture  ENG English Composition  PEA Physical Education Activities
AGM Agriculture-Mechanics  ENV Environmental Science  PEC Coaching/Officiating
AGP Agriculture-Precision Ag  ESL English As Second Language  PEH General Phys Ed and Health
AGS Agriculture-Animal Science  EVP Event Management  PET Physical Education Training
AGV Agriculture-Vet Tech  EVS Environmental Studies  PEV Intercollegiate Phys Education
ANT Anthropology  FIN Finance  PHI Philosophy
ART Art  FLS Foreign Language-Spanish  PHR Pharmacy Tech
ASL American Sign Language  GEO Geography  PHS Physical Science
ATR Automation Tech & Robotics  GRA Graphic Communications  PHY Physics
AUT Automotive Technology  HCA Health Care Administration  PNN Practical Nursing
AVI Aviation  HCM Hospitality Culinary & Mgmt  POL Political Science
BCA Business Computer Applications  HCR Heating, Vent, & Air Cond.  PSY Psychology
BIO Biology  HIS History  RDG Reading
BPT Bioprocess Technology  HIT Health Information Technology  REC Recreation
BUS Business  HSC Health Sciences  REL Religion
CAD Computer Aid Drafting  HSV Human Services  SCI Science
CHM Chemistry  JOU Journalism  SCS Sign Communication Skills
CIS Computer Programming  LGL Legal Assistant  SDV Student Development
CLS Cultural Studies  LIT Literature  SER Sustainable Energy Resources
COM Communication  MAP Medical Assistant  SMM Social Media & Marketing
CON Construction  MAT Mathematics  SOC Sociology
CRJ Criminal Justice  MFG Manufacturing  SPC Speech
CRR Collision Repair & Refinish  MGT Management  SUR Surgical Technology
CSC Computer Science  MKT Marketing  WEL Welding
DRA Film and Theatre  MMS Mass Media Studies  WTT Wind Energy & Turbine Tech
DSV Disability Services  MOT Motorcycle Technology
Course Descriptions

Accounting

ACC-111 Intro to Accounting, 3 cr.
Introduces the basic principles of accounting and the recoding of simple business transactions using the double entry system. Includes the accounting procedures of journalizing transactions, posting to the ledger, making a trial balance, creating receipt and disbursement of cash.

ACC-131 Principles of Accounting I, 4 cr.
Accounting methods, principles and terminology needed in the preparation and understanding of the financial statements of a business enterprise. Includes a study of partnership accounting.

ACC-132 Principles of Accounting II, 4 cr.

ACC-161 Payroll Accounting, 3 cr.
A study of payroll records and payroll taxes imposed by state and federal agencies.

ACC-221 Cost Accounting, 3 cr.
Develops an understanding of accounting methods for manufacturing and service enterprises including analysis techniques for management. Prerequisite: ACC-132

ACC-231 Intermediate Accounting I, 4 cr.
Reviews accounting procedures and reporting processes, including an in-depth analysis of generally applied accounting principles. Topics include the income statement, balance sheet, revenue recognition, cash and marketable securities, and notes and accounts receivable. Prerequisite: ACC-132

ACC-232 Intermediate Accounting II, 4 cr.
Continuation of ACC-231, including in-depth analysis of generally accepted accounting principles pertaining to liabilities, equities, revenues and expenses. Prerequisite: ACC-132

ACC-261 Income Tax Accounting, 3 cr.
Introduces the general theory and procedures pertaining to state and federal taxation. Studies application of laws as they pertain to income of individuals and sole proprietorships, gifts, estates and Social Security.

ACC-310 Computer Accounting, 2 cr.
Provides students with a basic understanding of the accounting cycle on microcomputers. Topics include ledgers, accounts receivable and payable, payroll, inventory and depreciation. An integrated accounting software package is introduced.

ACC-311 Computer Accounting, 3 cr.
Studies payroll records and payroll taxes imposed by state and federal agencies. The course will focus on computerized accounting records, including general ledger, accounts receivable, accounts payable, depreciation and payroll systems.

ACC-702 Certified Bookkeeper Review, 4 cr.
The course is designed to prepare students for successful completion of the Certified Bookkeeper National Certification Examination. Included in the course is a review of adjusting entries, correction of accounting errors, payroll accounting, depreciation, inventory, and internal controls and fraud prevention. Prerequisite: ACC-131

ACC-929 Individual Projects, 2 cr.
Provides experience in the application of accounting principles to a simulated retail business. P/Q grading.

ACC-941 Practicum, 3 cr.
On-the-job training experience provides the student with the opportunity to apply accounting concepts and procedures in a work situation and the opportunity to develop proper work attitudes.

Administrative Assistant

ADM-106 Intro to Keyboarding, 2 cr.
Teaches the basic computer keyboard using the touch method to develop speed and accuracy.

ADM-116 Keyboarding II, 3 cr.
Tabulations, letters, reports and other production work for students with previous instruction in keyboarding, but with insufficient skill to qualify for the next course.

ADM-132 Bus Math & Calculators, 2 cr.
Provides skills and competencies in basic mathematical functions and in the operation of electronic calculators. Emphasis is on solving business problems and in developing speed and accuracy.

ADM-142 Desktop Publishing, 3 cr.
Using WordPerfect or other word processing software on microcomputers to learn creating, retrieving, saving, editing, sorting, and printing documents. Various features of the program such as merging, macros, sorting, columns, tables, graphics and desktop publishing are covered.

ADM-162 Office Procedures, 3 cr.
Includes modern office skills and technologies, including word processing, automation, records management, reprographics, communication services, time management and methods of handling stress, meeting and travel arrangements and career advancement.

ADM-220 Career Development Skills, 1 cr.
Students will learn employability skills while developing professional and leadership skills. Students will create a resume and review positive interview skills while reviewing for the national certification exam. Students will also review concepts like bioethics, risk management, teamwork, group dynamics, and critical thinking and leadership in order to apply them to their own professional development plan.

ADM-254 Business Professionalism, 1 cr.
Introduction to Business Professionals of America activities, which includes preparation for state and national competitive events, leadership and professional development. P/Q grading.

ADM-255 Business Professionalism II, 1 cr.
Business Professionals of America prepares the student for their chosen profession by assisting them in their leadership and professional development for the workplace. Continuation of ADM-254. P/Q grading.

ADM-354 Business Professionalism III, 1 cr.
Continuation of ADM-255. P/Q grading.
ADN-355  Business Professionalism IV, 1 cr.
Continuation of ADN-354. P/Q grading.

ADN-936  Occupational Experience, 5 cr.
Apprenticeship in office systems. Students work as regular employees in offices supervised by staff members. This work experience is introductory to meet the student’s abilities and career objectives.

ADN-941  Practicum, 5 cr.
Practical field experience arranged to include office work, direct leadership, and procedures related to career work. Prerequisite: Permission of the instructor.

Associate Degree Nursing

ADN-106  Success in Nursing, 1 cr.
Prepares the nursing student for completion of the Associate Degree Nursing program. The student will explore the history of nursing to gain further insight into the profession. Emphasis is on maintaining a positive attitude, developing efficient study skills, time management, organizational tips, and establishing effective test taking strategies. The student will be introduced to: use of the computer, library services, APA format, and principles of research and information retrieval via the internet.

ADN-107  Introduction to Nursing Concepts, 4 cr.
Introduces concepts of caring, human needs, and the nursing process. The roles of the registered nurse as provider of care, manager of care, and member of the profession of nursing will be introduced. Concepts of critical thinking and evidence based practice will be integrated throughout the course.

ADN-108  Introduction to Nursing Concepts Lab, 2 cr.
Introduces the student to beginning nursing skills. The roles of the nurse as provider of care, manager of care, and member of the profession of nursing will be explored. The student will demonstrate nursing skills such as: sterile glove placement, catheter insertion, sterile dressing changes, vital signs, assessment, nasogastric tube placement, medication administration and intravenous placement. The student will discuss and demonstrate problem solving strategies and care associated with each skill. P/Q grading.

ADN-129  Bridging Into the Assoc Degree Nursing Program, 2 cr.
Bridging into the Associate Degree Nursing Program is a lecture/lab course that facilitates the role change from a practical nurse to a registered nurse. Concepts of critical thinking and the nursing process, human needs, and caring as they relate to the registered nurse will be integrated throughout the course. The student will demonstrate the following skills as they relate to the role of the registered nurse: assessment, nasogastric tube insertion, intravenous insertion and care, and intravenous medication administration.

ADN-130  Bridging Into the Assoc Nursing Program, 3 cr.
Bridging into the Associate Degree Nursing Program facilitates the changing role from a practical nurse into a registered nurse. Concepts of caring, human needs and the nursing process will be discussed. APA format, role of the RN, test taking strategies, stress, time management, and intravenous and nasogastric skills the RN is responsible for will be taught. Concepts of critical thinking and evidence based practice will be integrated throughout the course.

ADN-401  Nursing Interventions in Maternal/Child Hlth, 6 cr.
This course is designed to assist a student to develop skills in implementing a plan of care for maternity and pediatric clients utilizing the nursing process and standardized nursing language. The role of the registered nurse in health education and anticipatory guidance will be stressed. Experiences in acute care and community based settings will be utilized to strengthen assessment, planning, implementation and communication skills in the care of childbearing and childrearing families. P/Q grading.

ADN-454  Concepts in Women’s Health, 4 cr.
This course focuses on the application of the nursing process and use of standardized nursing language in meeting the needs of the childbearing and childrearing family. Content reviews the normal childbearing process with an emphasis on identification and management of risk conditions and patient education. Review of acute disorders and assessment and nursing management of the chronically ill child from infancy to adolescence is also discussed. Cultural aspects of childbearing and childrearing are integrated throughout.

ADN-456  Concepts in Women’s Health Clinical, 1.5 cr.
Provides learning experiences throughout the childbearing process and women's health issues. The nurse's role as provider of care, manager of care and member of the profession of nursing will be explored. The student will have the opportunity to experience obstetrics and the newborn nursery in an acute care setting and women's health issues in an outpatient clinic, physician's office and hospital setting. Utilization of critical thinking skills and evidence based practice will be integrated throughout the course. P/Q grading.

ADN-461  Nursing Interventions in Mental Health, 6 cr.
This course focuses on the application of the nursing process and use of standardized nursing language in meeting the needs of clients in various psychiatric health care settings. Emphasis is placed on assessment, health promotion, prevention, intervention, and follow-up strategies for persons and families at risk for emotional distress, crisis and mental illness. Current trends and issues related to mental health problems across the lifespan in multicultural populations will be explored.

ADN-462  Nursing Interventions in Mental Health Cl, 2 cr.
This course is designed to assist students to develop skills in providing nursing interventions to individuals experiencing mental health problems on a one-to-one or in a small group. Clinical experiences in acute psychiatric care and community based settings will be used to strengthen student's assessment, nursing care planning and communication skills in the care of clients with mental illness. P/Q grading.

ADN-463  Mental Health Nursing Concepts, 4 cr.
Focuses on the nursing process utilized in assessment, health promotion, illness prevention, crisis, and mental illness. Current issues related to mental health problems across the lifespan in multicultural populations will be explored.
ADN-464  Mental Health Nursing Concepts Clinical, 1.5 cr.
Develops the nursing skills necessary to provide individualistic care to clients experiencing mental health problems. The nurse's role as provider of care, manager of care, and member of the profession of nursing will be explored as the student cares for a variety of clients with psychiatric needs. Critical thinking skills and evidence based practice are utilized in the clinical setting when caring for clients. P/Q grading.

ADN-467 Mental Health Concepts, 5 cr.
Mental Health Concepts is a classroom/clinical course that provides an overview of the nursing process utilized in care of clients with mental health needs, addressing assessment, health promotion, illness prevention, and crisis management. The student will develop nursing skills necessary to provide individualistic care to clients with mental health needs. The nurse's role as provider of care, manager of care and member of the profession of nursing will be explored as the student cares for a variety of mental health clients. Critical thinking skills and evidence based practice are utilized in the classroom and clinical setting. Current issues related to mental health care across the lifespan in multicultural populations will be explored.

ADN-468 Women's Health Concepts, 5 cr.
Women's Health Concepts is a classroom/clinical course that introduces topics of reproduction, sexuality, family planning and antepartum, intrapartum, postpartum, and newborn care. The student will develop nursing skills necessary to provide individualistic care to clients experiencing reproductive needs including childbearing. The nurse's role as provider of care, manager of care and member of the profession of nursing will be explored as the student cares for childbearing clients. Critical thinking and evidenced based practice will be integrated throughout the course. Current issues related to reproduction and childbearing in multicultural populations will be explored.

ADN-501  Nursing Interventions in Adult Health I, 7 cr.
This course is the first of a two course sequence which focuses on the care of adults of all ages and cultures experiencing alterations in health. Emphasis is on general concepts of nursing practice, managing client care, and concepts and pathology encountered in medical surgical nursing. The nursing process, nursing diagnoses, and the Nursing Interventions Classification system guide the student in the care of clients with non-complex conditions.

ADN-502  Nursing Interventions in Adult Health I CI, 2 cr.
In the laboratory setting the student applies the principles and techniques used in assessment, parenteral therapy, and medical and surgical asepsis. The nursing process, nursing diagnoses, and the Nursing Interventions Classification system guide the student in the care of clients with non-complex relatively stable conditions. The student further develops skills in assessment, communication, and IV therapy. During this rotation, the student will follow and care for a client through the surgical experience. P/Q grading.

ADN-506  Nursing Interventions in Adult Health II, 8 cr.
This course is the second of a two course sequence which focuses on the care of adults of all ages and cultures experiencing alterations in health. Emphasis is on alterations in cardiovascular, renal/urinary, gastrointestinal, neurological, musculoskeletal, reproductive, and sensory/integumentary functions. The nursing process, nursing diagnoses, and the Nursing Interventions Classification system guide the student in the care of clients with increasingly complex conditions. This course prepares the student for entry level professional practice including management, delegation and job seeking skills.

ADN-507  Nursing Interventions in Adult Health II Cl, 2 cr.
This clinical experience is designed to assist the student with development of skills necessary for an entry level professional practice. The registered nursing role is explored in several settings, including home health. The student as a member of the nursing care team will utilize the nursing process to deliver comprehensive nursing care for clients with increasingly complex conditions. P/Q grading.

ADN-514  Care of the Aging Adult, 2 cr.
Provides an overview on the principles of aging. This course increases the ability of an entry level nurse in assessment, management and collaboration of care for a diverse aging population. Specific topics include physiologic changes, polypharmacy, advanced directives, safety, nutrition, social functioning, and end of life issues.

ADN-515  Care of the Aging Adult Clinical, 1 cr.
Further addresses the competencies needed when caring for a diverse aging population. The nurse's role as provider of care, manager of care and member of the profession of nursing will be explored as the student cares for the aging adult in a variety of settings. Clinical settings may include long-term care, assisted living, and community based environments. Critical thinking skills and evidence based practice are utilized in the clinical setting when caring for clients. P/Q grading.

ADN-564  Basic Concepts in Medical Surgical Nursing, 4 cr.
This course provides an overview of the principles of care for individuals throughout the lifespan. This course is designed to expand and build upon the skills and knowledge acquired in Introduction to Nursing Concepts. Concepts of caring, human needs and the nursing process will be further explored. Emphasis is placed on the care of a variety of clients in all stages of development. Critical thinking and evidence based practice will be integrated throughout the course. Specific topics include: fluid and electrolytes, acid/base balance, immunity, infection, inflammation, cellular regulation, pain/comfort, medical/surgical asepsis including perioperative care, cultural competence and grief and loss. The teaching role of registered nurse related to health promotion and lifestyle choices will also be discussed.

ADN-565  Basic Concepts in Medical Surgical Nrsng Cl, 4 cr.
This course utilizes the nursing skills in caring for individuals throughout the lifespan. This course builds upon the skills and knowledge acquired in Introduction to Nursing Concepts Lab. The nurse's role as provider of care, manager of care and member of the profession of nursing will be explored as the student cares for a variety of clients in a medical-surgical clinical setting. Cultural diversity and issues related to end of life care are addressed. Critical thinking skills and evidence based practice are utilized in the clinical setting when caring for clients. P/Q grading.

ADN-567  Adv Concepts in Medical Surgical Nrsng, 7 cr.
This course further builds upon the core concepts of caring, human needs, and the nursing process. The student will learn to care for clients in all stages of development who require increasingly complex nursing interventions and skills. Critical thinking and evidence based practice will be integrated throughout the course. Specific topics include: oxygenation, perfusion, digestion, elimination, metabolism, intracranial regulation, mobility, cellular regulation, sensory, fluid, and electrolyte balance.
ADN-568 Advanced Concepts in Medical Surgical Nrsng Cl, 2 cr.
Course builds upon the role of the nurse as provider of care, manager of care, and member of the profession of nursing. The student cares for a variety of clients in all stages of development requiring increasingly complex nursing interventions and skills. Critical thinking skills and evidence based practice are utilized in the clinical setting when caring for clients. P/Q grading.

ADN-590 Care of the Critically Ill or Injured Client, 3 cr.
Provides an overview of the basic principles of critical care. This course is designed to enhance the ability of an entry-level nurse in performing the initial assessment, management, and stabilization of clients with life-threatening illness or injury. Advanced concepts of critical thinking and evidence based practice will be integrated throughout the course. Specific topics include: oxygenation, perfusion, elimination, metabolism, intracranial regulation, mobility, thermoregulation, inflammation/infection, tissue integrity, immunity, hematology, comfort, and disaster nursing.

ADN-813 Professional Nursing Clinical 1 cr.
This course, Professional Nursing Clinical will assist the student in progressing into the entry level role of a registered nurse. The student will plan, implement, and evaluate care to assigned clients in an acute care setting under the supervision of a clinical instructor utilizing critical thinking skills and demonstrating positive communication. P/Q grading.

ADN-814 Professional Nursing Preceptorship 1 cr.
This course, the Professional Nursing Preceptorship, will assist the student in progressing into the entry level role of a registered nurse. The student will work with a preceptor to plan, implement, and evaluate care to assigned clients in a patient care setting utilizing critical thinking skills and demonstrating positive communication. The student will be selected for this course based on academic and clinical performance. P/Q grading.

ADN-816 Professional Nursing Clinical, 2 cr.
This course, Professional Nursing Clinical will assist the student in progressing into the entry level role of a registered nurse. The student will plan, implement, and evaluate care to assigned clients in a patient care setting utilizing critical thinking skills and demonstrating positive communication.

ADN-817 Professional Nursing Preceptorship, 2 cr.
This course, Professional Nursing Preceptorship will assist the student in progressing into the entry level role of a registered nurse. The student will work with a preceptor to plan, implement, and evaluate care to assigned clients in a patient care setting utilizing critical thinking skills and demonstrating positive communication. The student will be selected for this course based on academic and clinical performance.

ADN-820 The Professional Nurse, 2 cr.
Prepares the student for entry level professional practice. Areas of focus include: management, delegation, legal/ethical issues, conflict management and job seeking skills. The roles of the registered nurse as provider of care, manager of care, and member of the profession of nursing will be explored.

AGA-114 Principles of Agronomy, 3 cr.
Covers the basic principles of crop production, including classification, soil-plant interrelationships and growth process in response to environment.

AGA-131 Plant Physiology, 2 cr.
Course acquaints students with the activities of a complex plant during growth and reproduction and furthers the understanding of how these activities affect the normal production practices – planting, spraying, fertilizing, harvesting, etc.

AGA-154 Fundamentals of Soil Science, 3 cr.
An introduction to basic soil formation, classification, physical properties, water, organic matter, pH, and fertility. Prerequisite: CHM-151

AGA-156 Introduction to Soils, 3 cr.
Introduction to basic soil formation, soil component parts, classification, soil productivity characteristics, soil sampling, soil test interpretation, soil management and soil amendments.

AGA-218 Grain Harvest Hdlg Drying Equipment, 2 cr.
Course designed to give theoretical knowledge and practical experience in the operation of a combine, grain drying and grain storing equipment.

AGA-283 Pesticide Application Cert, 2 cr.
Preparation for the student to pass the state of Iowa Custom Applicators Core Manual examination. Includes safe use and handling of pesticides.

AGA-284 Pesticide Application Cert, 3 cr.
Preparation for the student to pass the state of Iowa Custom Applicators Core Manual examination. Includes safe use and handling of pesticides.

AGA-352 Soil Science & Fertilizer, 2 cr.
Studies soil fertilization, with emphasis on fertilizer material and applications, blending, soil test recommendations and handling in meeting crop needs.

AGA-353 Advanced Soil Fertility, 2 cr.
Course teaches the understanding of the manufacture of fertilizer, physical and chemical characteristics, materials and handling, and new technologies in application of fertilizers, including equipment and materials.

AGA-374 Pest Identification, 1 cr.
Collection and identification of weed and insect pests affecting corn and soybeans.

AGA-375 Integrated Crop Management, 2 cr.
Assists the student in developing the concepts of integrated pest management as they relate to cultural, mechanical, chemical and biological controls.

AGA-840 Agronomy Lab, 1 cr.
An individualized course for students wishing to develop a more in-depth or specialized study of agronomic information.

Agriculture-Farm Management

AGB-194 Beginning Sales, 2 cr.
Basic selling techniques, with emphasis on retail selling, role playing in sales situations and video playback critique.

AGB-210 Agricultural Law, 2 cr.
Introduction to business law which interprets the rights and social forces of business, society, government and contracts.

AGB-281 Computerized Agricultural Accounting, 1 cr.
Preparation for using a versatile computerized farm accounting system.
AGB-308  Farm Machinery Mgt Lab, 1 cr.
An individualized lab for students concurrently enrolled in AGB-309. Students explore programs for their own farm operations using software programs for machinery replacement strategies and the integrated crop management database.

AGB-327  Principles of Farm Business Management, 2 cr.
Current principles and practices of farm management. Production enterprise budgets, partial budgets and cash flow budgets are explored.

AGB-436  Grain Merchandising, 2 cr.
Studies livestock and grain futures marketing methods including product quality, methods and options.

AGB-437  Commodity Marketing, 3 cr.
Introduction to the commodity futures markets, with information on contract specifications, exchanges, basic trading information, and fundamental and technical market information.

AGB-439  Commodity Marketing Lab, 1 cr.
Strategies to increase proficiency in commodity and option marketing. Includes knowledge needed to sit for the Series 3 National Futures Examination.

AGB-466  Agricultural Finance, 3 cr.
Studies the sources and uses of farm credit to maximize farm income. Balance sheets, income statements and cost of financing options are a critical component of this class.

Agriculture-Comprehensive

AGC-102  Computers in Agriculture, 2 cr.
This course includes basic knowledge of computer hardware and operation. Software applications include word processing, spreadsheets, power point presentations, internet, and email.

AGC-103  Agricultural Computers, 3 cr.
This course includes basic knowledge of computer hardware and operation with an agriculture emphasis. Applications include word processing, spreadsheets, presentations, internet, email, Iowa Lakes Portal, eCompanion, Web Advisor and industry specific software.

AGC-104  Applied Computers in Agriculture, 2 cr.
A computer class designed to teach Spreadsheet, Database, and Desktop Publishing Skills. Continuation of AGC-106.

AGC-111  Basic First Aid/Life Support, 1 cr.
Teaches American Red Cross basic first aid and American Heart Association cardiopulmonary resuscitation (CPR).

AGC-210  Employment Seminar, 1 cr.
Preparation of the farm management student for entry into the non-family farm job market.

AGC-215  Career Seminar, 1 cr.
Student observes an agribusiness operation without pay. (Formerly AG-227A)

AGC-317  Agricultural Field Studies, 1 cr.
Studies the application of crop production and animal science production practices through field studies trips. Study trips will involve research farms, industry field days, extension field days and area farms.

AGC-928  Independent Study - Agriculture, 1 cr.
A special project in agriculture.

AGC-936, 937, 938  Occupational Experience, II, III, 3 cr.
AGC-939  Occupational Experience IV, 3 cr.
This course is a required on-the-job training experience in the Agribusiness and Ag Production curriculum. Students work in an agricultural setting gaining employment experiences while applying skills and technologies developed in the classroom.

Agriculture-Horticulture

AGH-102  Horticulture Math, 3 cr.
Covers the principles of mathematics as they relate to basic horticulture problems. This course will include both turfgrass and landscaping related material.

AGH-106  Introduction to Horticulture, 3 cr.
This course introduces students to basic horticulture. Includes plant anatomy and physiology, plant classification and identification, and basic plant care.

AGH-113  Turfgrass Management, 3 cr.
Students will learn the basics about the turf grass industry, different varieties of grasses and the care to maintain a healthy, attractive looking lawn.

AGH-117  Weed Identification, 2 cr.
Introduces the students to identification and collecting of weeds in turfgrass, nurseries, parks, and greenhouses. Students will learn the different life cycles of weeds and proper timing to control them.

AGH-126  Woody Plant Material, 4 cr.
Teaches students the various trees and evergreens hardy to Zone 4. Emphasis will be placed on Latin names and identification techniques of the plant material commonly used in the horticulture and landscaping industry.

AGH-128  Plant Material II, 4 cr.
Students will know the identification, characteristics, and growing of annuals and shrubs. Emphasis will be placed on Latin names and identification techniques of the plant material commonly used in the horticulture and landscaping industry.

AGH-129  Plant Material III, 3 cr.
Introduces the students to the various perennials. Emphasis will be placed on Latin and common names and identification techniques of the plant material commonly used in horticulture and landscape usages.

AGH-141  Equipment Operations, 3 cr.
Students will learn proper care and maintenance of the college grounds by using appropriate horticulture practices. Students will be introduced to specialized equipment, operation, and preventative maintenance, daily and minor repairs.

AGH-145  Landscape Construction, 2 cr.
Landscape Construction is designed to give students practical lab experience with classroom instruction in the Horticulture industry. Emphasis will be in the practical side with mainly hands-on experience.

AGH-152  Landscape Design Techniques, 3 cr.
Landscape Design Techniques is an introduction to the design tools and techniques used in landscape design. The topics include the use of scales, landscape symbols, design layout, and bed design techniques. Emphasis is placed on the design principles for preparing, evaluating and selling landscape plans.

45
AGH-154  Residential Landscape Design, 3 cr.
Residential Landscape Design is designed to teach the basic principles and skills of designing a landscape in using the proper plans, hardscapes, scales, balance, and many other principles to complete and sell a landscape design. Landscape design offers many exciting, challenging, and rewarding opportunities. Students in this class will examine the basic elements of residential and small commercial landscape design and will have the opportunity to prepare a number of designs using various formats.

AGH-161  Irrigation Systems, 3 cr.
Familiarize the students with the basics of the irrigation system and the components involved. Some of the components include: heads, valves, controllers, pipes, and other accessories used in an irrigation system, plus troubleshooting.

AGH-173  Landscape Installation & Maintenance, 3 cr.
Is designed to give students both practical lab experience and classroom instruction. Emphasis will be in the practical side with mainly hands-on experience.

AGH-256  Horticulture Chemicals, 1 cr.
Certification training in pest identification, control methods, pesticides and laws of the categories of ornamental and turf for a commercial applicators license. Prepare students to pass the core test and categories.

AGH-405  Golf Course Maintenance, 3 cr.
Introduction of turf grass management techniques utilized in the operation of a golf course. The various components studied include tee boxes, fairways, rough, greens and bunkers. Students learn how golf courses are managed in theory and practice.

AGH-850  Occupational Experience I, 4 cr.
Closely supervised period of on-the-job training in a business related to horticulture.

AGH-860  Horticulture Careers/Horticulture Fields Trip, 2 cr.
Introduces the students to various careers available within the horticulture fields through speakers from different occupations and by touring different businesses in the industry.

Agriculture-Mechanics

AGM-102  Farm Equipment Maintenance, 1 cr.
Basic machinery maintenance and adjustment of equipment used in agricultural business.

AGM-114  Hydraulics I, 2 cr.
A study of hydraulic components, including troubleshooting, removal, repair and replacement.

AGM-115  Hydraulic Components Lab, 3 cr.

AGM-116  Fundamentals of Hydraulic, 3 cr.
Basic hydraulic laws and principles as they apply to the farm equipment mechanics repair industry, how basic components work.

AGM-117  Fundamentals of Hydraulic Lab, 2 cr.
Using hydraulic test equipment, working at the test bench and testing hydraulics on tractors. Co-requisite: AGM-117.

AGM-161  Ag Construction, 1 cr.
General farm construction including concrete work, fencing, building fabrication and remodeling, electrical wiring and plumbing for water and gas.

AGM-203  Ag Welding, 2 cr.
Introduction to electric, gas, wire and oxy-acetylene welding.

AGM-300  Fundamentals of Electricity, 3 cr.
Basic laws and principles of electricity as they apply to the farm equipment repair industry, how basic components work.

AGM-301  Fundamentals of Electricity Lab, 2 cr.
Application of electrical laws and principles in checking electrical systems on selected farm equipment using electrical test equipment. Co-requisite: AGM-301.

AGM-302  Electrical Components, 2 cr.
Study of selected farm equipment electrical components and how to troubleshoot, repair or remove, and replace them.

AGM-303  Electrical Components Lab, 3 cr.

AGM-411  Engine Repair, 6 cr.
Fundamentals of engine overhaul with the emphasis on diesel and gasoline engines.

AGM-413  Diesel Engine Overhaul, 5 cr.
Continuation of AGM-204 including design and operation of diesel engines as well as rebuilding and troubleshooting procedures. Lecture and laboratory.

AGM-416  Combine & Implement Repair & Adjustment, 4 cr.
Assembly, maintenance and adjustment of harvesting, planting, tillage and spraying equipment. Lecture and laboratory.

AGM-420  Fuel Systems, 2 cr.
Application of technical principles to fuel systems and turbos, including diagnostics, adjustments and overhaul procedures. Co-requisite: AGM-421.

AGM-421  Fuel Systems Laboratory, 3 cr.
Study of technical principles and their application to fuel injection systems and turbos, including diagnostics, adjustments and overhaul procedures. Co-requisite: AGM-420.

AGM-425  Farm Equip Air Conditioning, 4 cr.
Theory, diagnosis and service of the complete air conditioning system as applied to farm equipment Lecture and laboratory.

AGM-430  Differentials and Final Drives, 6 cr.
Technical principles and their application to drive shafts, universal joints, differentials, differential locks, final drives and PTO’s, including diagnosis, repair, adjustment and overhaul procedures.

AGM-431  Transmissions, 7 cr.
Technical principles and their application to transmissions and clutches, including diagnosis, repair, adjustment and overhaul procedures.

AGM-850  Dealership Experience I, 2 cr.
A four week block of time in which each student works as a regular mechanic in a farm implement related dealership.
AGS-511 Dealership Experience, 2 cr.
A four week block of time in which each student works as a regular mechanic in a farm implement related dealership. This is the second on-the-job training.

Agriculture-Precision Ag

AGP-242 Precision Ag Applications, 2 cr.
Studies the basic principles of business, including a brief overview of some economic principles and methods of doing business.

AGP-329 Intro to GPS, 3 cr.
An introduction to the use of GPS and VRT as it impacts agricultural producers. Students will use field mapping software and GPS systems as part of the class.

AGP-450 Fundamentals of GIS, 3 cr.
ArcView on Windows-based computers is used to introduce GIS concepts and potential applications. GIS data collection, connectivity, management and presentation techniques are offered in lecture-laboratory format.

Agriculture-Animal Science

AGS-113 Survey of the Animal Industry, 3 cr.
This course is an introduction in animal science including various species and breeds of domestic animals and gives them an appreciation for the principles of production, biological principles, stewardship, and animal industries as they relate to animal production in the U.S. and the world.

AGS-114 Survey of the Animal Industry, 2 cr.
Introduction to the basics of livestock and poultry production.

AGS-240 Animal Health, 2 cr.
Animal environment and adaptation, animal health and animal behavior as it relates to production and non-production species.

AGS-242 Animal Health, 3 cr.
Provides information about the cause, nature, prevention, and treatment of the common health problems of farm animals. Identifies animal behavior and develops a herd health program.

AGS-319 Animal Nutrition, 3 cr.
Nutritional principles, digestive systems, composition and nutritional characteristics of common feedstuffs, ration formulation and recommended feeding programs for farm animals.

AGS-350 Artificial Insemination of Cattle, 1 cr.
To provide students with hands on skills in artificial insemination in beef cows.

AGS-400 Swine Production I, 2 cr.
A study of various aspects of swine production followed by in-depth units on farrowing management and production skills and techniques.

AGS-510 Swine Confinement Systems, 2 cr.
Course deals with swine management concerns in confinement operations.

AGS-511 Advanced Swine Confinement Mgt, 2 cr.
Basic introduction to swine confinement systems and management, including operation of equipment, ventilation systems and record keeping.

AGS-522 Swine Grower/Finisher Management, 2 cr.
Basic swine production skills and theory including nutrition, feeding, feed budgeting and feed handling, and general swine management practices to achieve successful grower-finisher and wean-to-finish management.

AGS-529 Swine Reproduction & Mgmt, 2 cr.
Provides an in-depth background for utilizing basic swine management principles.

AGS-556 Intro to Beef Cow Production, 2 cr.
Includes management, nutrition and breeding practices in a beef cow operation through classroom and practical experience.

AGS-557 Advanced Beef Cow Production, 2 cr.
Management of the beef cow herd with concentration on breed identification, reproduction, genetics, selection, calving management and record keeping systems.

AGS-558 Grazing Systems & Forage Mgmt, 2 cr.
Classroom and farm lab instruction covering establishment, management, economics and nutritional value of forage systems for ruminant animals.

AGS-559 Beef Feedlot Production, 2 cr.
Studies the buying, selling, nutrition, health and management of a beef feed lot operation.

AGS-561 Adv Beef Production, 2 cr.
Continuation of AGS-556.

AGS-562 Farm Enterprise Beef Feedlot, 1 cr.
A hands on lab were students gain skills in feeding management of beef enterprises.

AGS-563 Farm Enterprise Experience/Cow-Calf, 1 cr.
A hands on lab were students gain hands on skills in beef cow and calf management.

AGS-564 Farm Enterprise Forage Management, 1 cr.
A hands on lab were students gain skills in pasture management practices involving MIG (Managed Intensive Grazing) and silage harvesting practices.

AGS-565 Farm Enterprise Swine Tech, 1 cr.
A hands on lab were students gain skills in basic production practices needed in the swine life cycle. (Breeding, farrowing, nursery and finishing)

AGS-566 Farm Enterprise Swine Management, 1 cr.
A hands on lab were students gain skills needed to effectively manage Technician level employees. Also includes production record data input, records analysis and development of work lists to manage the swine operation.

Agriculture-Vet Tech

AGV-103 Introduction to Veterinary Science, 3 cr.
This course introduces the basics of animal identification, husbandry, behavior, safety and healthcare. Career opportunities in animal-related fields are explored. The student will also complete the American Red Cross Animal First Aid and CPR certification.

AGV-112 Veterinary Tech Anatomy & Physiology II, 4 cr
This course provides instruction in anatomy and physiology of domestic animals. The course focuses on digestive, nervous and sensory, endocrine and urinary systems. Lab activities focus on structure identification and dissection of related body systems of domestic animals.
AGV-118 Vet Tech Animal Anatomy & Physiology I, 4 cr.
This course provides instruction in anatomy and physiology of domestic animals. The course focus is on skeletal, musculature, renal, ophthalmic, cardiac and respiratory systems. Lab activities focus on skeletal identification and dissection of related body systems of domestic animals.

AGV-119 Veterinary Medical Terminology, 2 cr.
Introduction to word parts, directional terminology, and analysis of common veterinary terms.

AGV-120 Veterinary Medical Terminology, 1 cr.
Introduction to word parts, directional terminology, and analysis of common veterinary terms.

AGV-140 Veterinary Technology Pharmacology, 3 cr.
This course covers the study of drugs and other pharmaceuticals used in veterinary medicine. Emphasis will be on drug usage, client education, calculations, measurement, administration, inventory, and storage. This course will give a detailed outline of the technician's role and responsibility in the pharmacy.

AGV-145 Animal Nutrition, 3 cr.
Animal Nutrition provides instruction regarding essential nutrients and the role of each in an animal's metabolism. Topics include basic clinical and therapeutic nutrition, pet food analysis, nutritional deficiencies, and toxins. Emphasis is on dogs and cats with an introduction to large animal nutrition, feeds and feeding.

AGV-150 Office Procedures for Vet Technicians 3 cr.
Includes an overview of veterinary practice management and office procedures, with basic filing, record-keeping, telephone etiquette, cash drawer management, and the economics of veterinary practice. Instruction on the use of veterinary practice management computer software is provided.

AGV-158 Veterinary Law & Ethics, 3 cr.
Discusses moral, ethical and legal principles applicable to veterinarians and their employees, breeders, kennel operators, pet groomers and other allied to the small animal industry. Considers state, local and federal regulations relating to the industry. Effective client relations and telephone courtesy skills are also stressed.

AGV-161 Animal Nursing I, 3 cr.
The first of three courses to introduce and practice the fundamentals of animal nursing. Includes animal handling and restraint, patient admission and history, preparation and administration of vaccines and medications, care of hospitalized patients, introduction to radiology, practice management, client relations and sanitation. Limited to Vet Tech students.

AGV-162 Animal Nursing II, 3 cr.
Continuation of Animal Nursing I. Covers foundation material in pre- and post-surgical care, surgical assisting, fluid therapy, dental prophylaxis, anesthesiology, clinical pharmacy and basic nursing skills. Clinic and hospital record keeping are covered with an introduction to practical radiology.

AGV-167 Veterinary Clinic Pathology I, 3 cr.
Introduction to veterinary clinical pathology with an emphasis on laboratory procedures commonly performed in private practice. Fecal analysis, basic urinalysis and basic hematology are covered. Proper care and maintenance of laboratory equipment is stressed.

AGV-168 Veterinary Clinic Pathology II, 3 cr.
Basic clinical pathology laboratory procedures including specimen collection and preservation, hematology, and fecal exam preparation. Hematology will include preparation and performance of PCV, Hb, WBC, RBC counts, preparation and staining blood smears, and performance of differential cell counts. Limited to Vet Tech students.

AGV-174 Small Animal Clinic Observation, 1 cr.
Preparation for and observation at a veterinary practice to focus on small animals, including cats, dogs and other species as available.

AGV-177 Animal Nursing III, 4 cr.
Continuation of Animal Nursing II. Emphasis is on record keeping, emergency care, anesthesiology, radiology, dentistry, and surgical assistance.

AGV-181 Large Animal Clinic Observation, 1 cr.
Preparation for and observation at a veterinary practice to focus on large animals, including cattle, horses, sheep and swine.

AGV-183 Large Animal Clinic Observation, 2 cr.
Preparation for and observation at a veterinary practice to focus on large animals, including cattle, horses, sheep and swine.

AGV-187 Veterinary (Tech) Computer Apps, 3 cr.
This course re-introduces the student to computer software commonly used in veterinary practice. Students will become proficient in the use of Microsoft Office software and software used in the routine management of veterinary records.

AGV-188 Veterinary Clinic Pathology III, 4 cr.
Refinement of hematology and other skills acquired in Veterinary Clinical Pathology II. Additional units include urinalysis, electrocardiography, necropsy, cytology, parasitology and specialized clinical procedures.

AGV-189 Small Animal Clinic Observation, 2 cr.
Preparation for and observation at a veterinary practice to focus on small animals, including cats, dogs and other species as available.

AGV-932 Veterinary Technician Internship 4 cr.
This course requires an employment experience at a veterinary practice or clinic of at least 320 contact hours. A training sponsor at the employment site will provide supervision, in cooperation with the college instructor. Students will gain hands-on experience and demonstrate knowledge and skills developed in the classroom.

Anthropology

ANT-100 Introduction to Anthropology, 3 cr.
In this course we will work to make true statements about all human beings who have ever lived, all human beings who live today, and all human beings who will ever live, even to the point of not being human. This will be an introductory survey of the field of Cultural Anthropology from the cultural materialist theoretical perspective.

ANT-105 Cultural Anthropology, 3 cr.
This course covers the similarities and differences in human societies, from hunting and gathering to industrialized societies. Specific subjects covered include worldview, culture, language, economic systems, marriage, family, and kinship, gender, legal and political structures, religion, and more.

Art

ART-101 Art Appreciation, 3 cr.
Introduces art as a visual language, along with the methods and materials used. A brief art survey is also included, with the intent
of helping the student become more informed about the visual arts.

**ART-110 Contemporary Art and Issues, 3 cr.**
Contemporary Art and Issues is a history of visual arts course from 1940 to the present. Lives, careers, achievements and controversies of artists and the art world will be investigated. Special attention will be given to women in the arts and multiculturalism in the arts. Discussion of current and possible future trends will also be covered. (Formerly AR-206A - Contemporary Art)

**ART-121 2-D Design, 4 cr.**
The fundamentals needed to build effective two- and three-dimensional designs. The plastic elements of art along with the principles of organization will be introduced through a variety of hands-on experiences.

**ART-124 Computer Art, 3 cr.**
A studio-oriented course designed to use the computer as a tool for creating two-dimensional imagery. Technology is now used daily in the world of art including fine arts, graphic arts, and more. Ideally, the student should have access to the all or some of the following programs and peripherals: Microsoft Word, Microsoft Paint, a digital camera or scanner. Other items that could be utilized: Adobe Photoshop, Adobe PageMaker, Adobe Illustrator, printer, and other software appropriate for art and graphic design. In addition, the student should feel comfortable sending images and files via email and the internet.

**ART-127 Digital Illustration, 3 cr.**
Introductory course using electronic media as applied to specific problems in illustration, with an emphasis on preparing images for output.

**ART-133 Drawing, 3 cr.**
For the beginning drawing student. A variety of approaches and techniques will be used to develop and/or enhance the student's drawing skills. Exploration and experimentation with alternative drawing materials and methods will be strongly encouraged and supported.

**ART-134 Drawing II, 3 cr.**
Continuation and elaboration of ART-133. Prerequisite: ART-133.

**ART-134 Painting, 3 cr.**
The fundamentals of painting. A variety of painting media will be used, including oil, watercolor and acrylic. Diverse subject matter and approaches to painting will also be explored.

**ART-144 Painting II, 3 cr.**
Continuation of ART-143 with emphasis on a more personal approach regarding technique and imagery. Prerequisite: ART-143.

**ART-173 Ceramics, 3 cr.**
A studio class providing exploratory experiences in forming, firing, and decorating clay.

**ART-174 Ceramics II, 3 cr.**
Continuation of Ceramics I with an emphasis on the development of a personal approach to form. Prerequisite: ART-173.

**ART-206 Art History, 3 cr.**
In-depth study of how art relates to a timeline, studying art in chronological order from ancient Greece to the present. Explores the connection between great works and the environments that stimulated their creation.

**ART-286 Photography: Portraiture, 3 cr.**
Introduction to the art of portrait photography. Prerequisite: JOU-173

**American Sign Language**

**ASL-101 Intro to Am Sign Language & Deaf Cult. I, 2 cr.**
An introductory level sign language course in American Sign Language, which is different from signed English. ASL has its own syntax and sentence structure. Deaf culture is explored as it relates to communication.

**ASL-102 Intro to Am Sign Language & Deaf Cult. II, 2 cr.**
A continuation of ASL-101 adding to the student's vocabulary and proficiency.

**Automation Tech and Robotics**

**ATR-105 Industrial Robotics, 3 cr.**
Industrial Robotics covers the pertinent subjects to understanding how robots work and how they are programmed. It covers the aspects of robot motion and how a robot can be integrated and synchronized with other counterparts in a manufacturing environment.

**ATR-253 Robotic Programming, 3 cr.**
Robotic Programming is a course that will cover the development of robotic applications and common basic programming instructions used in industrial robotic platforms.

**Automotive Technology**

**AUT-105 Intro to Automotive Technology, 4 cr.**
Basic theory and correct procedures for servicing vehicles provide the student with the skills and knowledge required for routine vehicle maintenance.

**AUT-115 Automotive Shop Safety, 1 cr.**
This course is designed to prepare the student to work in the auto shop in a safe manner. The content will introduce the student to safety equipment, safety rules, and common accidents in the automotive service area.

**AUT-180 Engine Repair Theory, 3 cr.**
Provides the student with fundamental concepts of operation, diagnosis, and repair procedures of the modern automotive internal combustion engine.

**AUT-182 Automotive Engine Theory, 4 cr.**
Basic engine theory; parts identification, wear measurements, wear locations, valve refacing, valve guide service, valve seat reconditioning and engine diagnosis using various tests. Includes the reconditioning of cylinders, crankshaft and camshaft.

**AUT-183 Automotive Engine Lab, 5 cr.**
Disassembly and assembly procedures. Diagnosis of engine malfunctions, minor repair and complete overhaul, excluding rebuilding procedures such as boring cylinders and grinding crankshafts.

**AUT-184 Brakes Lab, 3 cr.**
The hands-on learning activities related to the operation, diagnosis, and repair procedures of the modern automotive internal combustion system. Areas included will be: mechanical, hydraulic, and electrical subdivision.

**AUT-186 Engine Repair Lab, 3 cr.**
Hands on activities providing the student with fundamental concepts of operation, diagnosis, and repair procedures of the modern automotive internal combustion engine.
AUT-212  Automatic Transmissions/Transaxles Theory, 4 cr.
The principles of operation of torque converters, planetary gears, multiple disc clutches, one-way clutches, servos, accumulators and hydraulics.

AUT-213  Automatic Transmissions/Transaxles Lab, 3 cr.
Automatic Transmissions is a study of the basic knowledge and skills a student should possess when working on the modern automatic transmission or transaxle.

AUT-260  Manual Transmission Theory, 3 cr.
Manual Transmission is a study of the theory of operation, diagnostic principles, and repair procedures used in accordance with the modern automotive manual transmission transaxle, and drive train systems.

AUT-313  Auto Manual Dr Train/Axle Lab, 3 cr.
Hands-on class shows operation and proper repair procedures of current manual transmissions/transaxles, differentials and drive axles used in late model vehicles.

AUT-410  Steering and Suspension Theory, 2 cr.
A course to provide the student with the theory of automotive and light truck steering and suspension systems. Design, operation, diagnosis, repair, and adjustment of these systems is covered. (Formerly AM-221C)

AUT-412  Automotive Suspension/Steering Theory, 3 cr.
Provides instruction design, operating principles, service, and alignment procedures of the automotive and light truck steering and suspension systems.

AUT-413  Auto Suspension/Steering Lab, 3 cr.
Covers operation and service of power and manual steering gears, rack and pinion systems, and suspension systems; practices method of four wheel alignment checks and front-end alignment.

AUT-510  Brakes Theory, 2 cr.
The theory of operation, diagnosis, and repair procedures related to the modern automotive braking system. Areas of instruction will include: mechanical, hydraulic, and electrical subsystems.

AUT-512  Auto Brake Systems Theory, 5 cr.
Basic principles of brakes, the hydraulic system, disc and drum brakes, parking brakes and power assist units. Emphasis on operation, diagnosis and repair of various braking systems.

AUT-513  Auto Brake Systems Lab, 4 cr.
A lab experience which will allow the student to acquire competencies in brake diagnosis and repair procedures.

AUT-622  Auto Electrical Systems Lab, 3 cr.
Hands-on class in the operation, construction and repair of alternators, starters and electrical components as they apply to the safety and driver convenience.

AUT-624  Automotive Elect Systems Lab, 5 cr.
A lab experience that will provide the student with the opportunity to perform diagnosis, repair, and adjustment of automotive chassis electrical systems. Skills acquired in previous labs may be reviewed.

AUT-630  Automotive Electrical Systems, 5 cr.
Basic electricity as it pertains to the automotive chassis electrical systems. The operation, construction, and repair of charging and starting systems will be covered. Electrical components as they apply to the safety and driver convenience systems of the auto will be studied and service repair procedures investigated.

AUT-703  Automotive Heating & Air Conditioning, 3 cr.
The theory of operation, diagnosis and repair of automotive air conditioning and heating systems. Lab experience will provide the student with the opportunity to acquire the competencies required for successful automotive air conditioning and heater maintenance.

AUT-704  Auto Heating & Air Conditioning, 4 cr.
This is a study in the theory and hands-on learning activities related to operation, diagnostics and repair procedures of the modern HVAC systems used in the automotive industry.

AUT-827  Auto Ignition Systems, 4 cr.
Operation, diagnosis and repair procedures used to service the modern automotive ignition system.

AUT-834  Auto Fuel Systems, 4 cr.
Diagnostic and repair procedures used to service the automotive fuel system from the fuel tank to the fuel injector.

AUT-842  Auto Computerized Eng Controls, 4 cr.
Theory of operation, diagnosis and repair procedures for electronic engine control systems used by the automotive industry.

AUT-851  Auto Eng Performance Diagnosis, 3 cr.
Performance Diagnosis is designed to be an applied critical thinking class. By showing them techniques to gather diagnostic information through customer interviews and technical routines they have the opportunity to develop the skills necessary to formulate rapid and accurate diagnoses of automatic drivability problems.

AUT-890  Automotive Technology OJT, 4 cr.
Automotive Technology OJT is designed to provide the student with the real work learning activities necessary to acquaint them with the function of the modern automotive technician and the skills demanded of them.

Aviation

AVI-105  Introduction to Aviation, 3 cr.
Introduction to Aviation provides a broad understanding of all aspects of the air transportation and aerospace industries. Lectures cover what has happened in the industry to date with emphasis on present and future developments in air transportation. The course examines the impact the airline industry is making on airports and other segments of aviation and aerospace.

AVI-110  History of Aviation, 3 cr.
History of Aviation presents historical antecedents leading to the conquest of the air and the evolution of aviation progress to the present day. The course is intended as an introductory course for those pursuing a major in aviation or considering aviation as a vocation or wanting to gain a historical perspective of the development of the field of aviation and aerospace.

AVI-112  Sport Pilot Ground School 3 cr.
Classroom ground school instruction in the fundamentals of aerodynamics, flight environments, aircraft systems, aircraft performance, weather, FAA regulations and the primary forms of navigation to become a Sport pilot.

AVI-113  Sport Pilot Flight Lab 2 cr.
The flight instruction required in the fundamentals of aerodynamics, flight environments, aircraft systems, aircraft performance, weather, FAA regulations and the primary forms of navigation to become a Sport pilot.
AVI-114  Sport/Private Pilot Bridge Lab 1 cr.
The flight instruction in the fundamentals of aerodynamics, flight environments, aircraft systems, aircraft performance, weather, FAA regulations and the primary forms of navigation to become a private pilot. Prerequisite: Sport Pilot Certificate

AVI-129  Employ Prep Aviation Careers, 1 cr.
Teaches students how to prepare an aviation-type resume, cover letter, and how to handle an aviation job interview.

AVI-139  Private Pilot Theory, 3 cr.
Private Pilot Theory is designed to prepare those students who want to obtain a Private Pilot Certificate with the information needed to successfully complete the FAA Private Pilot Airmen Knowledge Test. This course will cover such items as the fundamentals of flight, aviation weather, airplane performance, and navigation procedures along with flight planning and human factors involved in flying an aircraft. For students not desiring flight training, this course will provide valuable insight into a mode of transportation that will be an integral part of their futures.

AVI-140  Private Pilot Ground School, 4 cr.
Ground school instruction in the fundamentals of aerodynamics, the flight environment, aircraft systems, performance charts, weight and balance, weather and navigation, which prepares the student to pass the FAA written examination.

AVI-180  Private Pilot Flight Lab I, 3 cr.
Primary flight instruction in the basics of flying, leads to earning a Private Pilot Certificate from the FAA. The student will complete a minimum of 40 flight hours. Prerequisite: Second Class FAA Medical Certificate.

AVI-212  Instrument Ground School, 4 cr.
Ground school instruction in advanced aircraft systems; commercial flight maneuvers; review of weather, aircraft performance, weight and balance, Federal Aviation Regulations and aerodynamics. Prepares students to take the FAA Commercial written test.

AVI-215  Aviation Safety, 3 cr.
This course provides the student with a detailed introduction to aspects of aviation safety as well as the associated components of flight human factors, aircraft technology, weather related accidents and accident investigation. Prerequisite: AVI-105.

AVI-220  Aviation Meteorology, 3 cr.
This three hour credit course is a study of the basic components of the earth's atmosphere and provides a basic foundation in the meteorological and environmental factors that influence the formation of the various weather patterns found in near and upper atmospheric levels over the continental United States and the Northern Hemisphere. Included in the course will be discussion on how weather influences the basic aerodynamics of an aircraft in-flight and the basic pilot-static instrument system.

AVI-245  Commercial/Instrument Cross Ctry. Ft. Lab, 3 cr.
The student builds total flight time and increases the solo cross-country experience. In the second portion of the course initial instrument flight training is begun. Prerequisite: AVI-180 or hold a Private Pilot Certificate.

AVI-246  Commercial/Instrument Flight Lab, 3 cr.
The student develops increased instrument flying skills. At completion of the course the student should be able to earn the Instrument Commercial Pilot Certificate. Prerequisite: AVI-245

AVI-261  Commercial Pilot Ground School, 3 cr.
Ground school instruction in instrument procedures, preparing students to take the FAA instrument written test. Topics include instrument approach procedures, advance weather analysis, air traffic control procedures and advanced radio navigation procedures.

AVI-300  Flight Instrument Ground School, 3 cr.
Preparation for taking the FAA written examination to become a certified flight instructor and instrument flight instructor, as well as preparation for the FAA oral portion of the required flight test for these two certificates. Prerequisite: Instrument/Commercial Pilot Certificate (Single Engine).

AVI-301  Instrument Instructor, 1 cr.
Prepares students to be instrument flight instructors. The student will take the FAA flight test for this certificate at completion of the course. Prerequisite: Flight Instructor and Instrument Pilot Certificates.

AVI-350  Flight Instructor Flight Lab, 3 cr.
Transition to flying from the right seat in both the basic training aircraft and the high performance single engine aircraft. At completion of the course the student takes the FAA flight test. Prerequisite: Commercial Instrument Pilot Certificate.

AVI-400  Multi-Engine Rating, 1 cr.
The student builds flight time and gains Pilot in Command experience in multi-engine aircraft.

AVI-405  Multi-Engine Rating, 3 cr.
Ground and flight instruction to prepare the student for transition to multi-engine aircraft. The student will take the FAA flight test at completion of the course. Prerequisites: Instr. Commercial Single Engine Pilot Certification. (Formerly AV-206A)

AVI-928  Aircraft Transition Training, 1 cr.
A special project in the area of aviation.

AVI-941  Practicum, 1 cr., 3 cr., 5 cr.
Student is placed at an employment site, usually as a flight instructor, line personnel, co-pilot, etc. The employer evaluates student performance.

Business Computer Applications

BCA-134  Word Processing, 3 cr.
The essentials of word processing and the use of text-editing equipment.

BCA-152  Comprehensive Spreadsheets, 3 cr.
Provides the student with hands-on training in the use of popular spreadsheet software.

BCA-185  Beginning Web Page Development, 3 cr.
Introduces web page construction theory along with practical applications. Content includes basic terminology. HTML language and the planning and construction of the student’s own web page.

BCA-212  Intro to Comp Business Apps, 3 cr.
Introduction to the field of microcomputers and their components. Includes hands-on training in the use of Windows operating system, word processing, database, spreadsheet and graphic programs. No prior computer knowledge is necessary.

BCA-218  Adv Microsoft Office Apps, 3 cr.
Intermediate and advanced software applications utilizing the
most recent Microsoft Office Suite (Word, Excel, Access, and PowerPoint) to create documents, worksheets, databases, and presentations suitable for course work, professional purposes, and personal use. Prerequisite: CSC-110

**BCA-701**  Keyboarding Basics, 1 cr.
Use the computer program FasType for Windows to learn the basic skills of touch-typing. P/Q grading.

**BCA-702**  Intermediate Microsoft Word, 1 cr.
How to use Word's publishing capabilities to create flier, newsletter, brochures and other heavily formatted documents. Online course. P/Q grading.

**BCA-704**  Advanced Microsoft Word, 1 cr.
How to build time-saving macros, customize toolbars, create shortcut keys, crank out form letters and mailing labels, perform queries, and more. Online course. P/Q grading.

**BCA-705**  Intro to Microsoft Excel, 1 cr.
Shortcuts and tricks for setting up fully formatted worksheets, techniques in writing powerful formulas, use functions, sorting and analyzing data, creating custom charts, three-dimensional workbooks, building links, creating macros and custom toolbar buttons. Online course. P/Q grading.

**BCA-707**  Intermediate Microsoft Access, 1 cr.
Working faster and more productively by using Excel's features such as the PivotTable, Solver and AutoFilter. Building workbooks with decision-making capabilities and using advanced graphing techniques. Online course. P/Q grading.

**BCA-708**  Intro to Microsoft Access, 1 cr.
How to use a database to store, locate, print and automate access to just about any type of information. Online course. P/Q grading.

**BCA-709**  Intro to Microsoft Excel, 1 cr.
Online course. P/Q grading.

**BCA-710**  Intermediate Microsoft Access, 1 cr.
How to build a fully automated database management system complete with custom data entry forms, graphics and more. Online course. P/Q grading.

**BCA-711**  Intro to Microsoft Powerpoint, 1 cr.
Creating slide presentations with multimedia slides, charts, outlines, graphs, clip art, hypertext links and special effects. Online course. P/Q grading.

**BCA-712**  Intro to PC Troubleshooting, 1 cr.
Solving system glitches, interpreting error codes and messages, detecting and eliminating conflicts, replacing drivers and performing basic preventive maintenance. Online course. P/Q grading.

**BCA-718**  Introduction to QuickBooks, 1 cr.
Setting up a chart of accounts; reconciling a checking account; creating and printing invoices, receipts and statements; tracking payables, inventory and receivables; creating estimates and generating reports. Online course. P/Q grading.

**BCA-722**  Introduction to the Internet, 1 cr.
An overview of the Internet with a behind-the-scenes look at the World Wide Web, e-mail, Gopherspace, Newsgroups, FTP, chat, telephony, Telnet and more. Online course. P/Q grading.

**BCA-728**  Creating Web Pages, 1 cr.
Designing, creating and posting a site on the Internet's World Wide Web. Low-cost marketing techniques and search engine strategies are included. Online course. P/Q grading.

**BCA-730**  Advanced Web Pages, 1 cr.
Creating web pages incorporating tables, forms, frames, audio, scrolling text and interactive buttons, counters, cooperative banner ads, digital cash capabilities and more. Online course. P/Q grading.

**BCA-731**  Microsoft FrontPage, 1 cr.
Using FrontPage to easily create and upload professional looking web sites without programming. Course includes processes for selecting a web host and several low cost marketing strategies. Online course. P/Q grading.

**BCA-732**  Getting Organized With Outlook, 1 cr.
Using Microsoft Outlook to get the most out of e-mail communications and contact list, schedule appointments, track tasks and projects and organize information. Online course. P/Q grading.

**BCA-734**  Introduction to Windows 2000, 1 cr.

**BCA-741**  Basic A+ Cert: Hardware I, 1 cr.
Configuring and troubleshooting the hardware common to most personal computers. Online course. P/Q grading.

**BCA-742**  Intermediate A+ Cert: Operating Sys, 1 cr.
This course includes DOS; DOS memory management; Windows 3x tweaking and troubleshooting; and Windows 9x installation, optimization troubleshooting. Online course. P/Q grading.

**BCA-743**  Advanced A+ Cert: Hardware/Operating Sys, 1 cr.
Study of computer technologies including SCSI, video, modems, printers, multimedia, portable PC's and networking. Online course. P/Q grading.

**BCA-745**  CGI Programming for the Web, 1 cr.
Making a web site fun, interactive and informative with CGI. Using CGI and the Perl programming language to work with cookies and forms to build a searchable database, bulletin board and e-mail auto responder. Online course. P/Q grading.

**BCA-746**  Introduction to Visual Basic, 1 cr.
How to maneuver through the Visual Basic environment and use the Visual Basic language. Includes basics of window design, adding controls o user interfaces, databases and Structured Query Language (SQL); using these tools for personal applications. Online course. P/Q grading.

**BCA-747**  Java for the Absolute Beginner, 1 cr.
Learning the Java programming language, with practical exercises and examples. Online course; P/Q grading.

**BCA-751**  Microsoft Publisher, 1 cr.
The basics of Microsoft Publisher 2000, plus how to create a professional brochure, newsletter and a web site. Online course. P/Q grading.

**BCA-755**  Performing Payroll/QuickBooks, 1 cr.
Details the steps needed for proper setup of QuickBooks, from accessing the IRS web site to creating a new employee; tracking time and job cost data; and generating forms and reports. Online course. P/Q grading.

**BCA-756**  101 Tips/Tricks for Imac/Macin, 1 cr.
Tips, tricks and shortcuts in the operating system, keyboard, desktop navigation, the Internet, etc. Online course. P/Q grading.
Using Macromedia Dreamweaver for web design and development. Online course; P/Q grading.

Designing Effective Websites, 1 cr.
Graphic Design techniques to build attractive and effective web sites. Using the typography aesthetics, color graphics, page layout and the characteristics of effective web writing. Online course; P/Q grading.

Flash MX for Absolute Beginner, 1 cr.
Creating Flash animation, presentations and web sites. Online course; P/Q grading.

Intro to Adobe Acrobat 5, 1 cr.
Using Adobe Acrobat to create and use .pdf (portable document format) documents. Converting popular file types to .pdf, manipulation and formatting, collaboration and document sharing techniques, bookmarks and links, interactive forms and security. Online course; P/Q grading.

Introduction to SQL, 1 cr.
The key concepts of Structured Query Language are studied, including the basic structure of relational databases, how to read and write simple and complex SQL statements and advanced data manipulation techniques. Online course; P/Q grading.

Introduction to Oracle, 1 cr.
Learn how to use the Oracle database management system to plan, organize, and manage your data. This course will introduce you to the Structured Query Language (SQL), Oracle’s SQL*Plus, and other valuable tools used to develop, manage, and reference an Oracle database. You will learn how to create an Oracle database, build various database objects for the database, and write simple SQL statements that access the data from the database. Online course: P/Q grading.

Intro to Perl Programming, 1 cr.
Learn Perl, a powerful and easy-to-use scripting language used on PCs, servers, and on the Internet for a wide range of programming problems. Perl is as capable and often as fast as C, C++, and Java, but is easier to learn and does not require the sort of software development tools and environments required by those languages. Perl is also more portable and supported on a greater variety of computers than many other computing languages. Perl programming skills are especially valuable for Web developers, software developers, and system administrators. Online course; P/Q grading.

Creating User Requirements Doc, 1 cr.
Your success as a developer depends almost entirely on your ability to meet or exceed your customers? This course will show you, step by step, how to discover and document precisely what your customer wants. You will learn how to gather, manage, and document user requirements for any type of project in any industry. Online course; P/Q grading.

Intro to Dreamweaver 4.0, 1 cr.
Using Macromedia Dreamweaver for web design and development. Online course; P/Q grading.

Intro/ Microsoft FrontPage 2002, 1 cr.
Creating and uploading professional looking web sites without programming. Online course; P/Q grading.

The Classroom Computer, 1 cr.
Using a classroom computer to create a desire for learning in students, using simple, field-tested techniques throughout the curriculum. Online course; P/Q grading.

Computer Skills in Workplace, 1 cr.
Learning the fundamental computer skills you need to succeed in today’s workplace. You’ll discover practical applications for email, word processors, spreadsheets, and databases, gaining a working foundation for the critical computer skills you need to survive in the modern job market. Online course; P/Q grading.

Introductory Biology, 3 cr.
Introduction to all biology, ecology, physiology and biological principles. Intended for non-science majors. Lecture section of BIO-105.

Introductory Biology, 4 cr.
Introduction to all biology, ecology, physiology, and biological principles. Intended for non-science majors. Lecture and laboratory.

General Biology I, 4 cr.
Introduction to biology concepts with emphasis on ecology, cellular biology, reproduction and development, genetics and evolution. Lecture and laboratory.

General Biology II, 4 cr.
Introduction to biology concepts with emphasis on kingdoms; taxonomy and a survey of invertebrate and vertebrate organisms; plant structures and physiology; and animal systems. Lecture and laboratory. Prerequisite: BIO-112.

Ecology & Environment Concepts, 4 cr.
Basic ecology and environmental concepts, including population studies of the world and how they relate to environmental problems. Lecture and laboratory.

Nutrition, 3 cr.
Normal Nutrition provides the student with a basic background of the nutrients which are essential in maintaining the physical and mental well-being of the human body. An overview of the digestive processes and the relationship to each group of nutrients is presented. Basic nutritional principles of food selection are studied with an emphasis on health promotion throughout the life cycle. Students examine their personal eating habits and identify ways to promote a healthy nutritional status.

Essentials of Anatomy & Physiology, 4 cr.
Structure and function of the human body with emphasis on cells, tissues and all major organ systems. Anatomy and physiology are integrated at the cellular level and at the organ/system level. Lecture and laboratory.

Human Anatomy & Physiology I, 4 cr.
An advanced study of anatomy and physiology. The relationship between body structure and function and homeostasis forms the basis for the course. Pathological processes that result in dysfunction and disease are presented. Major topics include cell biology, histology, skin, skeletal, muscular, and nervous systems. Lecture and laboratory.

Human Anatomy & Physiology II, 4 cr.
An advanced study of anatomy and physiology. The relationship between body structure and function and homeostasis forms the basis for the course. Pathological processes that result in dysfunction and disease are presented. Major topics include digestive, endocrine, cardiovascular, lymphatic, respiratory, immune, blood, metabolism, reproduction, urinary, fluid, electrolyte, and acid-base balance. Lecture and laboratory.
BIO-186  Microbiology, 4 cr.
General microbiology designed for the science major and nursing students. Emphasis on morphology, physiology, microbial genetics, immunology, pathology, epidemiology, and laboratory techniques. Lecture and laboratory. Prerequisite: BIO-102, BIO-105, BIO-163, BIO-168, AGV-104 or higher.

BIO-210  Concepts of Pathophysiology, 4 cr.
This course will provide an in-depth analysis of the changes that occur in the human body as a result of disease or injury. Pathophysiologic concepts and common alterations occurring in the body systems will be defined and discussed. Interrelationships between risk factors, clinical signs, disease processes and medical treatment of common alterations will be analyzed.

BIO-248  Introduction to Bioscience Technology, 4 cr.
This course explores the expanding field of biotechnology and the impacts on society. Fundamental biology, chemistry and math concepts are applied through hands-on activities to emphasize essential laboratory methods. Course content and lab skills are relevant to agriculture, medicine, bioenergy and biosafety.

BIO-285  Projects in Biology, 1 cr.
Students develop and conduct their own research projects, work on actual research projects with biologists at the Department of Natural Resources, or research and conduct problem solving projects. Students must have instructor’s permission to enroll.

BIO-300  Field Biology & Lab, 4 cr.
Basic field study of the various types of ecosystems common to the Iowa Great Lakes region. Identification of plants and animals which inhabit these ecosystems. Specimen collection techniques, use of taxonomic keys, using water quality analysis equipment and ecological field methods. Lecture and laboratory.

Bioprocess Technology

BPT-103  Introduction to Biomass, 3 cr.
An overview of traditional fuel –energy sources in comparison to nontraditional fuel energy sources for the future such as biomass. Biomass energy potential will be covered as well as application and collection methods.

BPT-106  Industry Terminology-Safety I, 3 cr.
Students begin with first aid and basic OSHA (10 hour) certification. Course concepts include safety principles from job safety to equipment hazards.

BPT-107  Intro to Materials Management, 3 cr.
Introduction to materials management concerning purchasing/supply concepts with inventory, distribution and operations involving these activities in an organization.

BPT-108  Plant Management, 3 cr.
A survey of applied management concepts for industry operations. Supervisory planning, labor relations are covered as well as staffing, planning, leadership and contemporary issues.

BPT-113  Instrumentation, 4 cr.
Instrumentation, control loops and process control systems are presented in class and labs, to include process control loop training, process variables, analog and discrete signals, calibration errors, flow process and measurement, and temperature and pressure measurement.

BPT-124  Mechanical Fundamentals-Process Control I, 4 cr.
An introduction to plant equipment, pipes, valves, tanks, mixers, heat exchangers, distillation, pumps, motors, fans, with an emphasis on mechanical components, function and processes. Incorporated with equipment will be introduction to and applications of basic chemistry, fluid movement, heat and mass transfer. Schematics will be introduced to begin an overview of equipment interaction.

BPT-131  Water Treatment, 5 cr.
This course introduces students to the need for water treatment. The course will discuss removal of sediments and biologicals including algae, bacteria, and parasites. Methods include filtration, disinfection of water and sedimentation holding tanks.

BPT-202  Plant Process and Design I-Biodiesel, 3 cr.
A course covering plant processes and equipment for production of biofuels, specifically biodiesel, and other renewable energy items. There will be lab activities involving crushing, refining and quality control.

BPT-203  Plant Process and Design II-Ethanol, 3 cr.
A course covering plant processes and equipment for production of biofuels, specifically ethanol and other renewable energy items. There will be lab activities involving feedstock, fermentation and quality control.

BPT-932  Biomass Internship, 5 cr.
The on-the-job internship provides the opportunity for students to combine classroom principles, laboratory activities with on-the-job experience. The student, through the interview process with a cooperating employer, is placed in the biomass (and/or related industrial) facility that will provide a variety of beneficial and learning experiences.

Business

BUS-102  Intro to Business, 3 cr.
The basic fundamentals of business. Basic business and economic concepts and terminology; management, marketing, finance, human resource management, accounting and other business areas.

BUS-106  Employment Strategy, 2 cr.
Students are exposed to areas of retailing through field trips and interaction with people currently in the retail business. The class will involve job seeking skills and include actual job search and interviewing experience.

BUS-110  Business Math and Calculators, 3 cr.
A study of the mathematics of business in its application to a variety of vocations including fundamental mathematical processes, fractions, price and cost, interest, bank discounts, cash and trade discounts, depreciation, payroll and taxes, and financial statements. Students will acquire the skills to use Microsoft Excel to perform each concept as well as using the traditional methods.

BUS-115  Business Correspondence, 2 cr.
Emphasis on correct grammar; punctuation and spelling as applicable to written business communications, letters, memo and reports. Special notice is given to the individual student’s resume and letters of application.

BUS-121  Business Communications, 3 cr.
Communication skills necessary in the business world, including use of the telephone, interviews, job applications, listening skills and letter writing.

BUS-125  Business Principles, 2 cr.
Guidelines for starting and operating a successful business.
BUS-126 Business Principles, 3 cr.
Introduction to record keeping, financing, employee benefits and employer problems.

BUS-130 Intro to Entrepreneurship, 3 cr.
This course emphasizes these processes: understanding how to find, analyze and pursue an opportunity; understanding oneself and personality characteristics of the “entrepreneur,” examining the environment for entrepreneurship. A case and experiential approach is used.

BUS-150 E-Commerce, 3 cr.
Students are introduced to the basic elements of electronic commerce as a market where commercial activities are conducted. It will focus on business concepts and how to apply technology in order to be successful. Topics include market trends, globalizing a company, vendor solutions, storefronts, advertising, resource requirements, and operational issues of launching a commercial presence in today’s global electronic marketplace.

BUS-154 E-Business, 3 cr.
E-Business will cover the unique aspects of creating a business strategy in the E-Business environment and will focus on the internet as a medium for promotion and distribution. E-Business will discuss how traditional marketing and business arenas can be transformed in this environment.

BUS-160 Human Relations, 2 cr.
Students are given the opportunity to apply human relations concepts and evaluate experience and observations. Social skills required in various occupational settings will be developed, emphasizing how appropriate personal attitudes lead to social and business success.

BUS-161 Human Relations, 3 cr.
Students are given the opportunity to apply human relations concepts and evaluate experience and observations. Social skills required in various occupational settings will be developed, emphasizing how appropriate personal attitudes lead to social and business success.

BUS-163 Interpersonal Skills At Work, 2 cr.
Techniques for supervisors in relating to others, especially work group members. Considerations for helping supervisors develop and maintain positive and healthy work relationships.

BUS-175 Business Seminar I, 1 cr.
Introduces the Small Business Management program, career opportunities in the business world and includes an orientation to the business internship.

BUS-183 Business Law, 3 cr.
Introduction to the development of law in our society — the legal rights and social forces of government, business, society and contracts. Presented under the legal framework of the Uniform Commercial Code.

BUS-185 Business Law 1, 3cr.
Business Law 1 is an introduction to Business Law in the areas of legal environment of business, contract law, contracts for the sale of goods (UCC) and real and personal property law.

BUS-186 Business Law II, 3 cr.
A continuation of BUS-183 in the area of sales, principal agent relationships, commercial paper, creditor rights, and secured transactions, real property, and bailments, as time permits.

BUS-197 Leadership Development, 3 cr.
This course explores leadership styles effective in the workplace and helps participants gain insight into their natural leadership style and implications of that style on work and group performance.

BUS-211 Business Statistics, 4 cr.
The use of statistics by the methods of descriptive and inferential statistics. Both single and bivariate data are analyzed. Elementary probability and normal probability distributions are studied along with hypothesis testing linear correlation regression analysis and analysis of variance. Prerequisite: MAT-102 or 2 years of high school algebra.

BUS-212 Business Statistics II, 3 cr.
A continuation of BUS-211 or MAT-157. Application of statistics in a business context and use of computer software for statistics. Prerequisite: BUS-211 or MAT-157.

BUS-238 Business Problem Solving, 3 cr.
A Capstone course for those students in business and computer science programs. The course will apply knowledge learned in business curriculum including accounting, management, marketing, information technology, e-commerce and office systems through the development of business strategy and implementation. Topics to be covered include development of a mission statement, value creation, SWOT analysis and strategy implementation and assessment. Students will share knowledge learned across their individual disciplines to perform case analysis, promoting critical thinking skills, teamwork and a cross-functional business environment. (This course should be taken in the final semester of a student’s program.)

BUS-250 Principles of Real Estate, 3 cr.
Fundamental principles of real estate evaluation, brokerage, financing structure, construction and real estate law.

BUS-255 Real Estate Prelicensure, 3 cr.
This 60 hour prelicensure course is required by the Iowa Real Estate Commission prior to examination for an Iowa Real Estate Salesperson license. Upon completion of this 60 hour curriculum a participant will be exposed to principles of real estate, terminology, mathematical calculations, procedures and ethics necessary to enable them to understand the real estate profession, prepare them to take the Real Estate Salesperson Examination, and to function as a well-informed real estate salesperson.

BUS-259 Property/Liability Insurance Principles, 3 cr.
This introductory course addresses the fundamentals of property and liability insurance including risk, the methods of handling loss exposures, the effective use of insurance, insurance contracts, the regulation of the insurance industry, and the financial analysis of property and liability insurers. Other topics include marketing, underwriting, and claims settlement.

BUS-263 Commercial Insurance, 3 cr.
This course is intended to provide a broad understanding of the property and liability loss exposures faced by most organizations and the corresponding types of insurance for covering those loss exposures.

BUS-264 Personal Insurance, 3 cr.
This course provides an overview of personal insurance, including property and liability loss exposures and personal risk management, auto insurance, homeowners insurance, and other types of personal property and liability insurance are introduced. Finally, life, health, and disability insurance are covered.
BUS-268 Life Insurance/Financial Planning, 3 cr.
The focus of this course is on life insurance choices and comparison, the legal framework of life insurance, premium options, and reserves. Particularly emphasis is given to the concept of utilizing life insurance as a significant cornerstone of the financial planning processes.

BUS-932 Practicum, 3-5 cr.
On-the-job training, usually full time, in a small business or related enterprise.

BUS-938 Office On-The-Job Training, 5 cr.
Apprenticeship in office systems. Students will work as regular employees in offices supervised by staff members.

BUS-949 Special Topics, 3 cr.
Thirty-two students total from University of Iowa, University of Northern Iowa, Iowa State University, Buena Vista University, and Iowa Lakes will participate in advanced study of entrepreneurship that will include a team-based entrepreneurial venture computer simulation, seminars with successful entrepreneurs, business and community leaders, and networking and mentoring to enhance your understanding of entrepreneurship opportunities in Iowa.

Computer Aided Drafting (CAD)

CAD-119 Computer Aided Drafting I, 3 cr.
An introduction to the graphic language, the equipment, the hardware, and the basic techniques used to create technical drawings. CAD workstations will be used to create basic entities and teach technical drawing techniques.

CAD-121 Computer Aided Drafting II, 3 cr.
Instruction of technical drawing techniques will continue on CAD stations. The 3D dimension CAD will be surveyed, but emphasis will be placed on 2D drawing communication. Creation of multiview projections, sectional views, auxiliary views, revolutions, dimensions and tolerances will be practiced.

Chemistry

CHM-151 College Chemistry I, 4 cr.
The first of two general survey courses introducing the student to general, organic and biological chemistry. Topics covered are chemical calculations, atomic structure, nuclear chemistry, periodic relations, gas laws, solid state, solutions, and acids and bases. Lecture and laboratory.

CHM-152 College Chemistry II, 4 cr.
Continuation of CHM-151. Covers kinetics and equilibrium of chemical reactions as well as acid-base theory. Hydrocarbon naming and reactions are also covered, including alcohols, carbohydrates, amines, acids, acid derivatives, lipids, amino acids, nucleic acids and proteins, SNA, RNA and metabolism. Lecture and laboratory. Prerequisite: CHM-151.

CHM-166 General Chemistry I, 5 cr.
The properties of matter in terms of modern chemical principles. The topics covered are measurements, stoichiometry, atomic structure, chemical reactions, periodic relationships, gas laws, thermochemistry, quantum theory, solutions and equilibrium and inter-and intra-molecular forces. Problem solving in each of the areas is included. Lecture and laboratory. Prerequisite: High school chemistry and mathematics.

CHM-176 General Chemistry II, 5 cr.
Acids and bases, oxidation/reduction, solubility products, and nuclear chemistry, kinetics, equilibrium, thermodynamics, electrochemistry, coordination complexes, qualitative analysis, and an introduction to organic chemistry. Problem solving in each of the areas is included. Includes microscale and semi-microscale lab. Prerequisite: CHM-166.

CHM-190 Intro to Forensic Chemistry, 4 cr.
This course covers the basics of chemistry as it relates to the forensic lab. In the course we will cover the basics of evidence collection, clues at the atomic level, and the basics of chemical evidence including DNA evidence. Also covered will be the use of chemistry in explosives, arson investigations, poisoning, and estimating time of death of a victim. Lecture and laboratory.

CHM-263 Organic Chemistry I, 5 cr.
This is part of a yearlong rigorous survey of Organic Chemistry. Modern Organic Chemistry, including nomenclature, syntheses, structure, bonding, mechanisms and carbon and its compounds. This course is for students majoring in pre-medicine, pre-veterinary medicine, chemistry, biological sciences, and for anyone planning to take further courses in chemistry. Lecture and Laboratory. Prerequisite: CHM-176.

CHM-273 Organic Chemistry II, 5 cr.
Continuation of CHM-263. This is part of a yearlong rigorous survey of Organic Chemistry. Classes of organic compounds studied will be aldehydes, ketones, acids and acid derivatives, amines and nitrogen derived compounds. Aromatic compounds, reactions, mechanisms, carbohydrates, nucleic acids, and proteins are covered. Lecture and laboratory.

CHM-948 Special Projects, 2 cr.
Special problems in organic chemistry to cover deficiencies in a student’s organic chemistry background.

Computer Programming

CIS-141 Computer Science, 3 cr.
Introduction to the concepts of computer programming presenting modern structured design and techniques using Visual Basic 6.0 programming language.

CIS-146 Introduction to Video Game Development, 3 cr.
This course will introduce students to all aspects of the game development process. The course will begin with a brief history of the gaming industry and then delve into the specific design phases. Emphasis will be placed on the development of the design document and evaluating real world examples. Character design and storyboarding will be discussed as well as gaming genres and gaming consoles.

CIS-147 3D Level Design for Games, 3 cr.
This course will give students a hands on, example based introduction to the level design process for use in 3D games. Students will learn to use industry standard design programs and will understand basic lighting, texturing, NPC (non player character) and object placement as well as level layout concepts. Students will critique professional and peer designed levels through play testing and critical analysis.

CIS-148 3D Modeling and Character Animation, 3 cr.
This course will give students a hands on, example based introduction to modeling and animation process for use in 3D games.

CIS-161 C++, 3 cr.
Structured language which is powerful, efficient and versatile. The student can write programs from very simple applications to advanced editors, operating systems and sophisticated application programs.

CIS-162  C++, 4 cr.
This course introduces the general characteristics of C++. Students will learn to write code, execute, debug, explore the immense documentation and implement strategies. Prerequisite: Fundamentals of programming using Basic.

CIS-166  C++ for Game Developers, 3 cr.
The goal of this course is to give students advanced exposure to the C++ programming language as it pertains to game development. C++ is considered the standard language in the field and this course will provide hands-on examples coupled with theory that applies directly to gaming. Topics covered include basic programming constructs, object oriented programming, references and pointers, the standard template library, functions, and dynamic memory allocation. Advanced concepts include data structures and algorithms directly relevant to game programming. Prerequisite: CIS-125

CIS-171  Java, 3 cr.
Introduces basic Java language concepts by building applications and applets. Students will build graphic user interfaces using the Abstract Windowing Toolkit. Advanced Java concepts will be discussed. Prerequisites: CIS-141 and CIS-125.

CIS-204  Web Programming, 3 cr.
This course will give students the opportunity to explore web development concepts without the aid of design products like Adobe Dreamweaver. This course will begin with a brief history of the technological constructs of the Internet followed by an in depth, hands on approach to XHTML, CSS along with basic JavaScript. Concepts will include XHTML Documents Type Descriptions, basic formatting, hyperlinks, handling graphics and XHTML events, and various XHTML tags. JavaScript concepts will include: The Document Object Model, variables, statements, loops, decisions and program logic. Students will be exposed to the new tags and properties of HTML5 and CSS3.

CIS-304  Database and SQL, 3 cr.
To provide students with a foundation in the design, implementation and management of database systems. A vast array of new terminology will be introduced and an illustration of the physical and logical representation of data will be presented through the use of theory and practice. The concepts of Data Modeling, Normalization and the SQL language will be explored in depth followed by actual implementation in case studies and class projects. We will also discuss the role of database technology in modern industry. Microsoft Access will be the database management system used to apply the concepts in and outside of class.

CIS-366  Game Development I, 3 cr.
This course exposes students to 2-dimensional game development concepts using the Torque2D game engine. Students will learn concepts related to 2d game development and then apply what they learn to a variety of scenarios through examples and tutorials. The culmination of this course involves creating a fully functional 2d game. Topics include: introduction to the Torque2D software, level editing, sprites (animated and static), networking, behaviors, scripting, basic physics, GUI development, and sound. Prerequisite: CIS-125

CIS-367  Game Development II, 3 cr.
In this course, students will create a completed 3-dimensional game using the Torque Game Engine. Concepts presented include: world editing/terrain building, importing external assets relating to rigid structures, items, health packs, NPCs, etc..., using audio, advanced TorqueScript, networking, datablocks, and GUIs. Prerequisite: CIS-366

CIS-402  Cobol, 3 cr.
Produces the COBOL programming language, typical applications and program writing for business, including editing data, arithmetic statements, ‘if’ statements, flowcharting, branching, etc.

CIS-612  Advanced Visual Basic, 3 cr.
This course expands upon concepts of computer programming knowledge gained from Computer Science I (CIS-141), presenting modern structured design and techniques using Visual BASIC 2005 programming language, as well as gaining some insight to industry database programming with a brief introduction to Object Oriented Programming.

CIS-700  Introduction to Linux, 3 cr.
Introduction to the Linux operating system. Brief history of Linux and UNIX followed by an in depth, hands on dissection of the operating system with an emphasis on the Command Line Interface (CLI). Students will begin by partitioning a hard drive and installing Linux before proceeding into the minute details of the text and GUI modes of operation. Concepts will include: logging in and out, dealing with files and the file system, Linux process management and general commands.

CIS-928  Independent Study, 1 cr.
Independent study or a special project in computer science.

CIS-941  Computer Science Practicum, 3 cr., 4cr., 5 cr.
Students will gain practical experience at individual work stations and will be required to report on their field experience. Evaluations will be based on their on-site performance.

Communication

COM-020  Communication Skills, 3 cr.
Focuses on practical writing and business communication and on the types of writing which are useful in a workplace setting. A review of basic writing skills associated with sentencing and paragraph development will be presented, as will an overview of the writing process.

COM-723  Workplace Communications, 3 cr.
Developing skills in reading, writing and listening as they apply to students’ vocational needs.

COM-725  Workplace Communications, 2 cr.
Refining of skills in reading, writing and listening as they apply to the student's vocational needs.

COM-740  Oral Communications, 2 cr.
Introduction to basic oral communication with practice in public speaking, both impromptu and prepared, interview procedures and telephone usage.

COM-743  Oral Communication in the Workplace, 2 cr.
Writing and speaking skills for agribusiness technology students.

COM-780  Written Communication in Workplace, 2 cr.
Reading, writing and thinking exercises for vocational preparation.

COM-781  Written Communication in Workplace, 3 cr.
This course focuses on composition and editing of curriculum-specific technical and business-related writing projects. Instruction includes formatting, information gathering, document drafting, editing, and written employment strategies.
CON-106 Construction Welding, 1 cr.
Welding techniques applicable to the construction trade.

CON-113 Construction Print Reading, 2 cr.
Studies the builders’ visual language and communication.

CON-120 Construction Estimating, 1 cr.
Estimating techniques used at the lumber desk at a retail establishment.

CON-125 Construction Estimating II, 3 cr.
Construction Estimation II is an extension of the concepts learned in the first year in Construction Estimation. Processes learned in the first year class will be implemented and put into practice. Industry professionals will present different methods they use along with computerized estimation programs. Students will develop different estimation sheets for a specific task and implement into practice.

CON-128 Framing Techniques and Lab I, 4 cr.
This course covers the framing of a structure including floor systems, exterior and interior bearing/non-bearing walls, stairways, roof systems, exterior fascia and soffit framing along with exterior sheathing.

CON-137 Foundations and Concrete, 7 cr.
Covers structure foundations, concrete and concrete block construction. Lecture and laboratory.

CON-158 Carpentry Level III, 5 cr.
Carpentry Level Three is the third in the Contra series of the National Certified Carpentry program. It includes lecture and lab including exterior roof, moisture protection, stairs, metal studs, drywall, suspended ceilings, different trim applications, and cabinetry.

CON-195 Foundations and Concrete, 5 cr.
This course is designed to have the student work with site prep, plan and on-site building layout, and foundation work along with basement bearing partitions. Also included will be interior and exterior concrete. The student will study slab-on-grade foundations, poured and block foundations, and permanent pressure-treated foundations. Estimating foundation and concrete materials will be covered.

CON-201 Framing Techniques and Lab I, 2 cr.
Basic framing techniques with emphasis on identification and application. Lecture and laboratory.

CON-202 Framing Techniques and Lab II, 5 cr.
This course covers the framing of a structure including floor systems, exterior and interior bearing/non-bearing walls, stairways, roof systems, exterior fascia and soffit framing along with exterior sheathing.

CON-217 Exterior Finishing, 3 cr.
Exterior finish work on residential and commercial structures. Lecture and laboratory.

CON-218 Framing Techniques and Lab II, 4 cr.
This course covers the framing of a structure including floor systems, exterior and interior bearing/non bearing walls, stairways, roof systems, exterior fascia and soffit framing along with exterior sheathing.

CON-225 Techniques of Exterior Covering, 6 cr.
Studies exterior cover materials for residential and commercial structures. Lecture and laboratory.

CON-228 Methods of Interior Finishing, 3 cr.
Covers interior finishing material and its installation in residential and commercial structures. Lecture and laboratory.

CON-229 Install of Interior Finishing, 3 cr.
Covers interior wall coverings and their application as well as thermal and sound insulation. Lecture and laboratory.

CON-238 Techniques of Exterior Covering, 4 cr.
This course is a study of the products used in the exterior covering of a residential project including various types and styles of roofing materials, siding and exterior wall coverings, soffit and fascia materials, flashings, trim and moldings, exterior fasteners, caulks and sealants, and paints and preservations.

CON-300 Optimum Value Engineering - Adv. Framing, 1 cr.
This course describes and explains advanced framing techniques that are used in high energy efficient framing in residential housing construction. Students will explore and apply ways to frame and finish framing systems that save energy but using proven techniques. Students will also go to current building projects and critique framing methods being used on site.

CON-314 Sustainable Building Practices and Design, 1 cr.
Covers the sustainable building practices and alternative energy generation methods including residential and recycling processes. This course follows the ten unit curriculum from the Center on Sustainable Communities.

CON-326 High Energy Efficiency Construction, 4 cr.
This course covers the framing of a structure including floor systems, exterior and interior bearing/non bearing walls, stairways, roof systems, exterior fascia and soffit framing along with exterior sheathing.

CON-329 Construction Management, 3 cr.
The Construction Jobsite Management student will be introduced to various styles of construction jobsite management through real life jobs with industry representatives and first year Construction Technology student’s projects. Students will learn about the project team, use of documents on the jobsite, submittals, shop drawings, jobsite layout, meeting control, safety management, changes and claims forms, documents and project closeout record keeping.

CON-351 Computer Generated Blueprint and Design, 3 cr.
This course is an overview of basic computer aided residential construction drafting and design. It explores concepts, issues and methods in computer-aided design. Emphasis is placed on the creation of two-dimensional as well as three-dimensional models using the design program.

CON-431 Construction Internship I, 6 cr.
On-the-job training to gain experience in the student’s field of interest.

CON-932 Internship, 3 cr.
The Construction Internship II provides on the job training for area of student interest. This course will have a manager’s or supervisor’s emphasis with job shadowing and leadership skills the main focus. Students will be required to document their time and discuss with instructor during scheduled meetings.
Criminal Justice

CRJ-100 Intro to Criminal Justice, 3 cr.
Survey of the American criminal justice system, the early, middle and late stages of the criminal justice system are analyzed within the framework of law and research.

CRJ-101 Ethics in Criminal Justice, 3 cr.
Through study of various models of ethics, students will learn how to evaluate difficult moral and ethical decisions they are likely to face as a practitioner in the law enforcement or corrections field.

CRJ-110 Patrol Procedures, 3 cr.
Broad examination of the various structures and functions of American Law Enforcement agencies and their functional units. The exploration of police procedures revolves around the topics of discretion, effectiveness and efficiency, and constitutional limits.

CRJ-115 Motor Vehicle Law, 1 cr.
Working professionals in law enforcement design a course of study for the students. The content of this course varies with time. Students will be introduced to the Iowa Motor Vehicle Code. Students will investigate laws pertaining to traffic, OWI, and commercial vehicle regulations. The Implied Consent Law will also be examined.

CRJ-116 Law Enforcement Seminar II, 1 cr.
Working professionals in law enforcement design a course of study for the students. The content of this course varies with time.

CRJ-117 Independent Study Law Enforcement, 1 cr.
Course taken to investigate substantive issues in law enforcement.

CRJ-120 Intro to Corrections, 3 cr.
Survey of correctional theory and practice including such topics as: historical foundations of contemporary corrections, applied theory, evaluation research, sentencing and crime prevention.

CRJ-121 Corrections Seminar I, 1 cr.
Students explore human service topics. This is often done with the assistance of correctional professionals or human service personnel in related fields.

CRJ-122 Corrections Seminar II, 1 cr.
See CRJ-121. In some circumstances students can work with clients if the setting is different from the agency they choose for their field experience.

CRJ-123 Service Learning Project, 1 cr.
Courses taken to investigate substantive issues in the field of corrections or to begin work with clients in a limited capacity.

CRJ-130 Criminal Law, 3 cr.
This course examines the elements of criminal law. Including the categories of crime by type, defenses, and individuals involved. The course also includes the historical development of criminal law. Prerequisite: CRJ-100

CRJ-131 Criminal Law and Procedure, 3 cr.
Examination of the more common crimes, criminal defenses and the procedures used to process a criminal case from arrest to final disposition.

CRJ-133 Constitutional Criminal Procedure, 3 cr.
This course examines the protections afforded to individuals by the US Constitution. Specific areas addressed include initial contact with law enforcement and continues through post-conviction relief. Students should gain an understanding of criminal procedures through statutory and precedent case review. Prerequisite: CRJ-100 and CRJ-130

CRJ-136 Correctional Law, 3 cr.
Examines the law in the correctional setting with obligations of correctional workers. Prerequisite: CRJ-120

CRJ-141 Criminal Investigation, 3 cr.
Covers fundamentals of investigation including interviewing and interrogating; collecting and preserving evidence; modus operandi; crime scene search; etc.

CRJ-160 Intro Forensic Investigation, 3 cr.
An introduction to forensic investigation that exposes students to various disciplines and techniques in forensic investigation. Topics included are forensic anthropology, forensic deontology, forensic entomology, forensic serology and criminalistics.

CRJ-166 Intro/Digital File Sys Forensic, 3 cr.
This course will provide Computer Forensics students with a solid foundation in the computer industry's most popular file systems, with an emphasis on forensic processing. The course will begin with a brief overview of hard drive technology and proceed into the abstract world of logical structures. We will begin dissecting logical structures with a look at PC based partitions followed by a forensic minded look at the data structures of the following file systems: 1e Allocation Table (FAT.x), New Technology File System (NTS), EXT.x and USF 1 and 2.

CRJ-170 Overview of Cybercrime, 3 cr.
This course identifies and discusses the nature of the successful cyber-crime investigation and the proper preparation for trial. Students will have a better understanding of current technology used in these crimes.

CRJ-172 Cyber Investigations, 3 cr.
This course is an introduction to the recovery, analysis, and documentation of digital evidence. Knowledge and practical experience will be gained by analyzing several case studies. Special computer skills and tools will be introduced. Legal concerns and ethical conduct will be emphasized.

CRJ-173 Intermediate Digital Forensics, 3 cr.
This course will build upon concepts presented in Introduction to Digital Forensics. Students will get experience with data acquisition and analysis tools (GUI and CLI), advanced data recovery techniques, email investigations, and guidelines for report writing and expert witness testimony.

CRJ-200 Criminology, 3 cr.
Scientific study of the nature and causes of criminal behavior and social deviance.

CRJ-201 Juvenile Delinquency, 3 cr.
Juvenile justice system is examined from historical constitutional and operational perspectives. Theories concerning juvenile delinquency are explored.

CRJ-207 Drug Use and Abuse, 3 cr.
Designed to help the student understand sociological aspects of drug use, abuse and treatment.

CRJ-208 Introduction to Private Security, 3 cr.
This course will introduce the student to the private security profession in America and current trends in the industry.
CRJ-214 Survival Spanish for Criminal Justice, 2 cr.
This program is designed to provide non-Spanish-speaking criminal justice students and police officers with functional skills in Spanish. Spanish phrases, commands, and questions practical to daily police and corrections work are covered. No prior knowledge of Spanish necessary.

CRJ-218 Field Experience I - Law Enforcement, 2 cr.
Course designed to provide students with on-the-job experience in a law enforcement agency of their choice. The student will also learn the requirements of the law enforcement profession. Prerequisite: CRJ-100

CRJ-219 Field Experience II - Law Enforcement, 3 cr.
Continuation of CRJ-218. Prerequisite: CRJ-218, completed 9 credits of Criminal Justice courses obtaining a 2.5 GPA in Criminal Justice courses and a 2.0 Cumulative GPA.

CRJ-220 Community-Based Corrections, 3 cr.
Presents the theoretical and philosophical basis of probation, parole and other community based correctional programs.

CRJ-225 Field Experience I-Corrections, 2 cr.
On-the-job experience in a correctional agency. Students also learn the requirements of a career in the correctional field and receive training in how to find a job.

CRJ-226 Field Experience II - Corrections, 3 cr.
Continuation of CRJ-225.

CRJ-250 Firearms, 1 cr.
Introduction to police firearms safety and care; use of deadly force; chemical agents; firing range safety; latest techniques of combat shooting; and recreational shooting.

CRJ-270 Forensics Computer Science I, 3 cr.
An introduction to the technical aspects of digital evidence identification, collection and analysis. Curriculum will build upon concepts presented in Computer Hardware/Overview and Overview of Cyber Crime. Topics covered will include digital file systems, data recovery and preservation, keyword searches, hard drive and floppy disk imaging, data compression and encryption. Students will receive hands-on training via case study scenarios using state of the art forensic hardware, software and methodologies, utilizing both manual and automated processes.

CRJ-271 Internet Criminal Investigation, 3 cr.
An in-depth study of the structure, protocols and technology of global Internet communication with an emphasis on criminal investigation. Topics covered include TCP/IP, network security, computer viruses and the tracking of Internet activity occurring through email, chat rooms and news groups. Current trends in Internet criminal activity will be discussed and students will perform research on relevant cases and topics.

CRJ-272 Forensics Computer Science II, 3 cr.
This course will provide Computer Forensics students with an introduction to the Linux operating system as a forensic tool for investigators. Students will be introduced to the Linux architecture by installing and configuring Red Hat Linux 9.0 and working at the shell prompt. This will be followed by using Linux based tools for forensic analysis of computer systems.

CRJ-273 Comp Forensics Capstone Project, 2 cr.
Presents the theoretical and philosophical basis of probation, parole and other community based correctional programs.

CRJ-900 CJ with the Expert, 1 cr.
Supplemental enrichment course related to Criminal Justice which may include special projects or papers.

CRJ-901 CJ in the Big City, 1 cr.
Supplemental enrichment course related to Criminal Justice which includes special projects; projects may include tours, Ride-Along, question and answer sessions with professionals and others affected by the criminal justice field.

CRJ-920 Field Experience, 5 cr.
Course for students who wish to take all their experience at one time.

Collision Repair & Refinish

CRR-203 Plastic Repairs Theory, 2 cr.
Students receive instruction and perform all types of plastic and adhesive repair as well as SMC repair. Course is achieved through industry demos, and hands on plastic repairs.

CRR-302 Intro to Collision Repair, 2 cr.
Shop and tool safety, tool and equipment usage and career options in the collision repair industry are studied. Vehicle construction and components are introduced and environmental effects and proper safety, handling and disposal of hazardous materials used in collision repair are studied.

CRR-326 Sheet Metal Repair Theory, 3 cr.
Metalworking skills are emphasized as the foundation of properly repairing damaged metal panels, followed by an understanding of body fillers and shaping techniques. Damage theory is covered in addition to damage analysis and the different types of steel used in automotive construction. Introduction and paint gun use for conversion coatings and primer will be covered.

CRR-327 Sheet Metal Repair Lab, 2 cr.
Metalworking skills are performed by properly repairing damaged metal panels, followed by using body fillers and shaping techniques. Damage analysis and repairing steel panels used in automotive construction are worked with first hand. Introduction and paint gun use for applying conversion coatings and primer will also be covered.

CRR-351 Collision Lab I, 2 cr.
Students perform a real non-structural repair from beginning to end with direct supervision of the instructor.

CRR-352 Collision Repair Lab II, 2 cr.
Students repair vehicles in the lab based on actual estimates generated by the students. Skills are fine-tuned to sequence a repair plan while improving speed and working efficiently on a production basis. Prerequisite: CRR-351.

CRR-421 Non-Structural Repair Theory, 3 cr.
Panel replacement and alignment of doors, hoods, etc. are studied. Course also covers theories of door hardware, window systems, and exterior and interior trim replacement and repairs.

CRR-422 Non-Structural Repair Lab, 2 cr.
Panel replacement and alignment of doors, hoods, etc. are practiced. Door hardware, window systems, and exterior and interior trim replacement and repairs and performed on actual vehicles.

CRR-540 Structural Repair Theory, 3 cr.
The basic fundamentals of frame diagnosis and repair on conventional and unitized frames are taught. Also, the types of frame machines and safety are introduced, as well as collision theory. Structural integrity via stationary glass is covered along with its replacement. Includes replacement of structural panels, including both new and used parts. Sectioning techniques are introduced as well as a study in sideswipe, frontal, and rear damages as well as rollover damages.
CRR-541 Structural Repair Lab, 2 cr.
Frame diagnosis and repair on conventional and unitized frames are performed on vehicles. Frame machines, as well as structural integrity via stationary glass is covered along with its replacement. Includes replacement of structural panels including both new and used parts. Sectioning techniques are introduced as well as a study in sideswipe, frontal, and rear damages as well as rollover damages. All above work is performed on actual vehicles.

CRR-606 Mechanical Repairs Theory, 2 cr.
Accident damaged mechanical components are covered in this course. Basic repairs to electrical, suspension, steering, cooking and air conditioning systems are taught, beginning with diagnosis and an understanding of identification and system operations.

CRR-607 Mechanical Repairs Lab, 1 cr.
Basic repairs to electrical, suspension, steering, cooking and air conditioning systems are performed beginning with identification of damaged parts and replacement.

CRR-742 Estimating Theory, 2 cr.
Analyzing and learning to write a cost estimate using a computer as well as printed material. Knowledge of parts, manuals, nomenclature and flat rate charts is covered and shop management techniques are introduced.

CRR-749 Estimating Lab, 1 cr.
Practice in analyzing a job and writing an estimate using a computer as well as printed material. Shop management skills and professionalism are demonstrated. Co-requisite: CRR-742.

CRR-809 Introduction to Refinishing Theory, 1 cr.
Introduction to painting including surface preparation, safety, composition of paint, primers and sealers, application techniques and equipment.

CRR-809 Introduction to Refinishing Lab, 3 cr.
Practice in surface preparation, safety, application techniques for paints, primers and sealers. Masking skills and paint application are performed. Correcting paint imperfections is practiced along with application of decals and stripes. Co-requisite: CRR-808.

CRR-838 Refinishing II Theory, 2 cr.
Theory of adjusting tints for a color match, blending techniques, tri-coat finishes to achieve finishes on today's vehicles. Color theory and techniques for applying pearls and metallics are studied.

CRR-839 Refinishing II Lab, 3 cr.
Practice in adjusting tints for a color match, blending and spraying tri-coat finishes and applying pearls, metallics and custom paints. Prerequisite: CRR-809. Co-requisite: CRR-838

CRR-908 Cooperative Education, 2 cr.
Job training in a collision repair facility performing assigned tasks. Prerequisite: first two semesters of program.

Computer Science

CSC-101 Computer Familiarization, 1 cr.
This course is designed to teach students basic computer skills. Emphasis will be a hands-on experience with basic software applications and file maintenance. Utilization of PowerPoint, internet skills and electronic data searches will also be included.

CSC-110 Intro to Computers, 3 cr.
Introduction to microcomputers and their components. Covers computer concepts and management information systems.

Hands-on training includes the use of Windows, word processing, spreadsheet, graphics and database programs as applied to the solution of business problems.

Film and Theatre

DRA-101 Intro to Theatre, 3 cr.
Introduces drama as a separate literary form as approached historically from Greek drama to the present, including both classic and contemporary drama.

Disability Services

DSV-104 Making a Difference: Service Careers, 3 cr.
Introduction to the human services and helping professions. A basic overview of services available, recipient populations and issues related to helping others. Covers professionalism, teamwork and communication skills.

DSV-125 Behavior Management, 3 cr.
Students will develop the beginning skills of observing and managing the behavior of others individually or in groups. This course introduces students to beginning behavior teaching methods and situations. Teaches how-to skills, such as observing, recording, designing, implementing and evaluating behavior programs.

DSV-135 Assessment and Instruction, 3 cr.
This course introduces students to the value base of human services and helping professions. Address strategies and practices used in assessing and evaluating client needs, establishing and identifying resources and making appropriate referrals. Intake interviews and assessments are explored. Students will develop knowledge and basic skills in the area of programming and developing support services and community resources. Ethical issues are also addressed.

DSV-155 Services & Vocational Planning, 4 cr.
Focus is on available support services and vocational aspects of rehabilitation. Content includes identification of job tasks, occupational characteristics and job matching. Students gain understanding of the need for services and the referral process. Job analysis and labor market surveys are completed. Students will develop an appreciation of the psychosocial adjustment aspects of living with a disability. This course will cover both physical and mental disabilities and services available. Students will participate with Service Learning projects.

DSV-160 Counseling Skills, 4 cr.
This is an introductory course in applied counseling techniques. Students are introduced to a variety of facilitative skills and counseling concepts and work through the interviewing process in simulated helping services settings.

DSV-932 Internship Human Services/Disab St., 2 cr., 3 cr.
Practical field experience in phases of operation and duties relating to human services, paraeducation, health or rehabilitation. Focus is program writing, data collection, documentation, job skills, and participant outcome.

DSV-941 Practicum, 3 cr., 4 cr., 6 cr.
Practical field experience in phases of operation and duties relating to human services, paraeducation, health or rehabilitation. Focus is program writing, data collection, documentation, job skills, and participant outcome.
Early Childhood Education

ECE-103 Intro to Early Childhood Ed, 3 cr.

ECE-106 Childhood Development Associate Standard, 1cr.
Assists the eligible CDA credential candidate with developing and preparing for the Preschool, Infant-Toddler, or Family Child Care CDA validation visit and assessment. Prerequisite: ECE-133, ECE-103, ECE-243 with a 2.0 GPA. Obtain an Eligible CDA Advisor and meet CDA credential eligibility.

ECE-110 Early Childhood Professionals I, 1 cr.
Emphasizes problem solving skills and team building through a variety of group activities. Pre-requisite: Child Care program.

ECE-111 Early Childhood Professionals II, 1 cr.
Emphasizes human relations skills including communication, leadership, personal appearance, etiquette and job seeking skills. Prerequisite: ECE-110

ECE-112 Portfolio Development I, 1 cr.
Guides students' development of a professional early childhood education portfolio showcasing their knowledge, skills, and dispositions in alignment with the NAEYC Standards for Professional Preparation of Students at the Associate Degree Level. Prerequisite: Enrollment in Child Care or Early Childhood Education programs with at least 6 credits or previous completion of at least 6 ECE credits.

ECE-113 Portfolio Development II, 1 cr.
Guides students' completion and presentation of a professional early childhood education portfolio showcasing their knowledge, skills, and dispositions in alignment with the NAEYC Standards for Professional Preparation of Students at the Associate Degree Level. Prerequisite: ECE-112 Corequisite: To be taken the final semester of Early Childhood program.

ECE-133 Child Health/Safety/Nutrition, 3 cr.
Focuses on current concepts in the fields of health, safety and nutrition and their relationship to the growth and development of the young child ages birth to eight. Blends current theory with practical applications and assessments. Includes the influences of families and diversity on health, safety, and nutrition in early childhood settings.

ECE-140 Early Childhood Curriculum Planning, 3 cr.
Examines and evaluates early childhood curriculum and methods leading to the development and implementation of appropriate curricula for young children. Prerequisite: Completion of Child Care Diploma Program.

ECE-158 Early Childhood Curriculum I, 3 cr.
Focuses on the development, implementation and assessment of appropriate environments and curricula for young children ages three through eight. Students prepare to utilize developmentally appropriate practices in a context of family and culturally sensitive care. Emphasis is on understanding children's developmental stages and developing appropriate learning opportunities, interactions and environments in the following areas: dramatic play, art, music, fine and gross motor play.

ECE-159 Early Childhood Curriculum II, 3 cr.
Focuses on the development, implementation and assessment of appropriate environments and curricula for young children ages three through eight. Students prepare to utilize developmentally appropriate practices in a context of family and culturally sensitive care. Emphasis is on understanding children's developmental stages and developing appropriate learning opportunities, interactions and environments in the following areas: emergent literacy, math, science, technology and social studies.

ECE-170 Child Growth and Development, 3 cr.
Reviews typical and atypical development of children from conception to adolescence in all developmental domains. Presents interactions between child, family and society within a variety of community and cultural contexts. Examines theories associated with our understanding of children.

ECE-210 Early Childhood Prof III, 1 cr.
Emphasizes problem solving skills and team building through a variety of group activities. Prerequisite: ECE-111.

ECE-211 Early Childhood Prof IV, 1 cr.
Emphasizes human relations skills including communication, leadership, personal appearance, etiquette and job seeking skills. Prerequisite: ECE-210.

ECE-221 Infant/Toddler Care and Education, 3 cr.
Focuses on care, education, and assessment of children from birth to thirty-six months. Prepares students to utilize developmentally appropriate practices including responsive caregiving, routines as curriculum, importance of relationships with diverse families, and a focus on the whole child in inclusive settings.

ECE-224 Early Childhood Guidance, 3 cr.
Focuses on effective approaches and positive guidance strategies for supporting the development of all children. Emphasizes supportive interactions and developmentally appropriate environments. Uses assessment to analyze and guide behaviors. Studies impact of families and diversity on child guidance.

ECE-243 Early Childhood Field Experience, 3 cr.
Supervised experience in selected early childhood settings serving children ages birth through eight. Includes integration of theory, research, and reflective practice. Provides an understanding of developmentally appropriate practices and the developmental stages of diverse populations of young children and families. Emphasizes professional relationships and behavior, appropriate adult/child interactions, basic curriculum planning, and program routines. Prerequisites: ECE-158, ECE-159, ECE-170, ECE-243, ECE-221 with 2.0 Cumulative GPA and 2.0 GPA in Early Childhood courses.

ECE-262 Early Childhood Field Experience, 3 cr.
Supervised experience in selected early childhood settings serving children ages birth through eight. Includes integration of theory, research, and reflective practice. Provides an understanding of developmentally appropriate practices and the developmental stages of diverse populations of young children and families. Emphasizes professional relationships and behavior, appropriate adult/child interactions, basic curriculum planning, and program routines. Explores the overall operation of a program. Prerequisites: ECE-103, ECE-133, ECE-158, ECE-159, ECE-170, ECE-243, ECE-221, ECE-262, ECE-140, ECE-290 with 2.0 Cumulative GPA and 2.0 GPA in Early Childhood courses.
ECE-290  Early Childhood Program Admin, 3 cr.
Covers the basic principles involved in setting up, equipping and administering a child care center. Emphasis is on business procedures, insurance, funding, state and federal regulations, staff and community relations, record keeping, policy writing, program evaluation and child care advocacy. Prerequisite: ECE-272, ECE-261, ECE-140.

Economics

ECN-120  Principles of Macroeconomics, 3 cr.
Reviews national income and output; employment and prices; money and credit; government finance; monetary and fiscal policy; economic growth and development; and international finance.

ECN-130  Principles of Microeconomics, 3 cr.
Reviews the organization and workings of modern economic systems; the role of markets, prices and competition in the promotion of economic welfare, alternative systems and international trade.

Education

EDU-210  Foundations of Education, 3 cr.
An introduction to professional education providing a historical and philosophical background from which the student can examine his or her commitment to education. Challenges and issues in education today will be discussed in the context of school organization, funding, curriculum, professionalism, legal issues and effective teacher characteristics.

EDU-212  Educational Foundations, 3 cr.
An introduction to professional education providing a historical and philosophical background from which the student can examine his or her own commitment to education. Challenges and issues in education today will be discussed in the context of school organization, funding, curriculum, professionalism, legal issues and effective teacher characteristics.

EDU-215  Introduction to Education Lecture, 3 cr.
Introductory professional education course with an overview of the foundations of education in America, including current professional, social and philosophical issues in education.

EDU-217  Introduction to Education Lab, 1 cr.
Students will complete 40 hours of observation and assistance in a K-12 setting.

EDU-235  Children's Literature, 3 cr.
Teaches the criteria for choosing the best children’s literature and applies that criteria to evaluating materials to be used in the classroom.

EDU-710  Microsoft Excel 2003 in the Classroom, 1 cr.
Learn the basics of Microsoft Excel 2003 while exploring ways both you and your students can benefit from this powerful program. You'll learn Excel terminology, how to use the toolbars; how to sort data; how to insert formulas for addition, subtraction, multiplication, and division, how to create colorful charts and graphs; and much more! Throughout the course, you'll explore standards-based lesson plans and activities that will allow you to pass your Excel knowledge on to your students, no matter what their grade level. By the end of this course, you'll have a solid understanding of the basic functions of Excel, and a wealth of ideas for integrating Excel technology into lesson plans across your curriculum. Online course. P/Q grading.

EDU-712  MS PowerPoint 2003 in the Classroom, 1 cr.
If you're an educator, this course will help you discover the exciting possibilities of using PowerPoint for and with your students. You'll master a variety of uses for PowerPoint in the classroom, and you'll be able to create compelling lessons and presentations filled with text, graphics, sound, and video. You'll be able to use PowerPoint templates or create your own dynamic presentations that will increase interest in any subject you teach. Online course. P/Q grading.

EDU-713  Using the Internet in the Classroom, 1 cr.
Harness the power of the Internet to make your textbooks and lessons come alive! Teach your students how to locate and evaluate Internet resources. Improve the caliber and amount of discussion through the use of e-mail and discussion boards. The Internet can make teaching easier. This course will show you how. Online course. P/Q grading.

EDU-714  Guiding Kids on the Internet, 1 cr.
Work the Web with your kids! This essential course for teachers, leaders, and parents will give you the confidence you need for helping children get the best from the Internet. Online course. P/Q grading.

EDU-715  Integrating Technology in the K-5, 1 cr.
Join us for an exciting and fun-filled tour of the technology-friendly classroom. Educational technology is advancing at an astounding rate, offering today's busy teacher quick and easy solutions for more interactive lesson plans, exciting WebQuests, and challenging assignments. Discover the power and creativity that technology can bring to your classroom as we look at basic integration, subject-specific activities, and smart ways to make your integration seamless. Take your teaching to another level with these fun new ways to incorporate technology into your lesson. Online course. P/Q grading.

EDU-716  Differentiated Instruction in the Classroom, 1 cr.
Differentiated instruction (DI) is becoming a mainstay in classrooms across the country as educators are starting to see the ways that the traditional classroom setting limits their ability to reach diverse learners. Join us on this journey through 10 practical DI integration strategies! Count on at least three sample integration lessons on each strategy, and just think of all the ways that you can apply them to improve learning outcomes for your students. Online course. P/Q grading.

EDU-717  Solving Classroom Discipline Problems, 1 cr.
Why do some teachers enjoy peaceful, orderly classrooms while other teachers face daily discipline battles? The answer is that many teachers have not been taught the secrets to solving discipline problems. This course reveals those secrets and presents a step-by-step approach to effective, positive classroom discipline. Teachers continually rate this course one of the most valuable they have ever taken. Online course. P/Q grading.

EDU-718  Understanding Adolescents, 1 cr.
To know your kids is to love them. In this course, an experienced social worker will help you gain a deep understanding and appreciation of your adolescent's development and behavior. You'll uncover the secrets of the adolescent mind and gain valuable information on how they think, how they feel, how their identities develop, and what steps you can take to ensure that you are well prepared to meet the needs of the teens in your life. Online course. P/Q grading.

EDU-719  Survival Kit for New Teachers, 1 cr.
Are you a new teacher who feels anxious about entering your first classroom? Whether you're already teaching, a newly creden- tiated graduate, or a substitute looking to transition to full-time, this course will provide you with all the time-tested tools, tips, and tricks you need to make your early years in the classroom a breeze. Online course. P/Q grading.
EDU-720  Teaching Science: Grades 4-6, 1 cr.
Ready to maximize your abilities in teaching science? You’ll learn about foundational content in physical, life, and earth science, and ways to teach that content to your students. Discover specific teaching methods and science process skills, and learn how to improve the emotional climate in your classroom. Lots of examples and worksheets you can use in your own classroom are included. There’s a big emphasis on the scientific method, and there’s even an entire lesson devoted to science fairs! Online course. P/Q grading.

EDU-721  Enhancing Language Development in Chld, 1 cr.
Follow your child’s lead and have fun while enhancing language development! In this fun and user-friendly course for parents, teachers, and caregivers, you will discover how children learn to process language and how they become proficient speakers and thinkers. This course will help you enrich your child’s life by stimulating his or her continued speech, brain, and language development in an enjoyable, age-appropriate, and natural way. Online course. P/Q grading.

EDU-722  Ready, Set Read!, 1 cr.
Learn what the newest research says about how children really learn to read and write and become a powerful guide to literacy development when you work with young children. Gain confidence in your ability to guide a child’s literacy development, and take pleasure in seeing how even the littlest events can be really big steps in reading and writing success. Online course. P/Q grading.

EDU-723  Big Ideas in Little Books, 1 cr.
Increase student performance on standards important to your district by learning how to develop your own work books, lab manuals, booklets, activity kits, visual aids, and manipulatives targeting those standards. The instructor -- a former K-12 teacher who is also the author and developer of over 50 products for the educational market -- will walk you step-by-step through the process of creating a wide variety of instructional materials. You’ll also learn how to profit from your ideas by offering the products you develop for sale through catalogs, stores, and trade shows. Online course. P/Q grading.

EDU-724  The Creative Classroom, 1 cr.
Creativity will abound in your classroom as you tap into your students’ hidden talents. Learn creative new approaches to learning labs, activities, exercises, assignments, field trips, and evaluation methods. Think beyond the textbook and challenge your students by making your classroom a creative classroom. Online course. P/Q grading.

EDU-725  Microsoft Word 2003 in the Classroom, 1 cr.
Mastering Microsoft Word can make you a more productive and creative teacher. Throughout this course, you’ll learn to create, open, edit, and save documents, as well as create tabs and margins, change alignment and line spacing, add clip art and tables, and complete a host of other exciting tasks. As you get more familiar with this program, you’ll find that it enhances your teaching in ways you didn’t think possible. Join us on this exciting journey into Microsoft Word. Online course. P/Q grading.

EGT-117 Fluid Power Fundamentals, 2 cr.
This course will introduce students to the basic principles and components of fluid power systems. Students will also learn how to read fluid power schematics and troubleshoot basic systems.

EGT-139 Statics Engineering, 3 cr.
Statics Engineering is a course normally taken by engineering students or those seeking employment in engineering firms. In statics, one studies methods for the determination of support forces and relationships between internal force distributions and external loads for stationary structures. Co-requisite: PHY-212

EGT-146 Basic Hydraulics, 3 cr.
This course will introduce students to the basic structure and application of hydraulics. Students will also learn how to read hydraulic schematics and troubleshoot basic hydraulic components.

EGT-932 Engineering Technology Practicum, 5 cr.
Provides on-the-job learning experience in the engineering-tech industry. Prerequisite: Completion of Term 1 and Term 2 courses.

Electrical Technology

ELE-119 Basic Electricity I, 3 cr.
Electrical Theory I is an introduction to basic electrical theory and components that make up electrical circuits. Direct Current and Alternating Current will be introduced and basic laws for voltage, current and power relationships will be presented in lecture and laboratory format. Course content will include, but not be limited to basic circuits, electrical components and their applications. Hands-on reinforcement of theory covered during lecture is practiced in lab.

ELE-136 Basic Electricity II, 4 cr.
Electric Theory II consists of instruction that will build upon experience gained in Electric Theory I. Students will be introduced to advanced concepts of electrical theory. Pre-Req: ELE-119

ELE-155 NEC I, 2 cr.
An introduction to the NFPA 70® National Electrical Code®. The course covers Chapters 1 and 2 of the Code, including the structure of the Code, requirements of electricians, and basic wiring and protection.

ELE-156 NEC II, 2 cr.
A continuation of the NFPA 70® National Electrical Code®. The course covers Chapters 3 and 4 of the Code, including wiring methods, materials, and general equipment. Pre-Req: ELE-155

ELE-158 NEC III, 2 cr.
A continuation of the NFPA 70® National Electrical Code®. The course covers Chapters 5 and 6 of the Code, including special occupancies and equipment. Pre-Req: ELE-155 & ELE-156

ELE-181 Residential Electric/Electronics Systems, 4 cr.
This course is designed to introduce students to residential wiring. Discussion topics will include safety, planning, using residential building plans, calculating loads, and wiring methods. Lab settings will require the student to use hand tools and wire circuits. The National Electrical Code will be used in depth to determine the requirements used for residential wiring. We will be using hand and power tools in the labs for wiring practices and installations.
ELE-182 Basic Electronics, 4 cr.
Students will gain understanding about analog and digital electronics at basic level of familiarization with the semiconductor devices and their functions. The course focuses on applications and apparatuses used in wind turbine technology. The course is accompanied by laboratory work. Pre-Req: ELE-119 & ELE-136

ELE-183 Electrical Practical Applications, 4 cr.
Electrical Practical Applications will provide students with practical wiring exercises involving installation, wiring, and troubleshooting of electrical devices and equipment used in, but not specific to, wind turbine control systems. Students will study electrical diagrams, design of electrical systems, and electrical safety. Pre-Req: ELE-226

ELE-226 Electric Motors & Generators, 4 cr.
Electric motors & generators is an introduction to types of motors and generators that are used today. The characteristics of Direct Current and Alternating Current motors and generators will be discussed and demonstrated through lecture and hands on laboratory sessions. Pre-Req: ELE-119 & ELE-136

ELE-242 Programmable Logic Control Systems, 4 cr.
Introduce students to Programmable Logic Controllers (PLC’s), primarily the Siemens S7-200 processors, the Siemens LOGO smart relay processor and the Bachmann M1 Controllers. The course will provide students with experiences in the following:

- Numbering systems associated with programming and addressing PLC’s
- Hardware and software familiarization associated with PLC’s
- Using programming instruction sets to create and edit ladder logic programs
- Troubleshooting techniques using a PLC
- Troubleshooting techniques using a schematic and drawings

Pre-Req: ELE-119, ELE-136, ELE-182

ELE-255 NEC IV, 2 cr.
A completion and review of the NFPA 70® National Electrical Code®. The course covers Chapters 7, 8, and 9 of the Code, including special conditions, communications systems, and applicable tables to the Code. Pre-Req: ELE-155, ELE-156, ELE-158

ELE-354 Commercial Electric/Electronics Systems, 3 cr.
This course introduces students to commercial wiring. It begins with the planning of the commercial installation by using blueprints, layout, and calculations. They will be required to calculate load for branch circuits, feeders and the electrical service. Wiring methods, luminaires, motors and overcurrent protection will also be covered. The National Electrical Code requirements will be used and explained to understand how they are applied to commercial installations. The labs will consist of bending conduit and use hand tools for wiring methods and practices. Pre-Req: ELE-181

ELE-357 Industrial Electrical/Electronic Systems, 3 cr.
This class will deal with the wiring aspects and electrical components of industrial installations. Modern industrial plants require technicians to be knowledgeable in high voltage, medium voltage, and low voltage systems. Systems from the substation, overcurrent protection, conductors, capacitors, and power quality will be discussed. Wiring methods and practices for hazardous locations will be taught in the class also. Pre-Req: ELE-181 & ELE-354

ELE-933 Electrical Technology Practicum, 5 cr.
Provides on-the-job learning experience in the electrical industry. Prerequisite: Completion of Term 1 and Term 2 courses.

Electronics

ELT-125 Advanced PLC, 3 cr.
This course will introduce students to advanced programming commands through industrial applications. Concepts include sequencers, file moves, arithmetic functions and data communications from different PLC platforms.

ELT-309 Digital Circuits & Systems 3 cr.
This course provides students with knowledge and understanding of digital logic circuit design and operation using integrated circuits. Studies include combinatorial logic circuits, flip-flops, arithmetic circuits, counters and registers, memory devices and logic families. Prerequisite: ELE-119. Co-requisite: ELE-136 & ELE-242

Emergency Medical Services

EMS-112 EMS First Responder, 3 cr.
Students will learn recognition of symptoms of illness, injuries and proper procedures for basic emergency care. The curriculum for this course is the National Curriculum of the US Department of Transportation, National Highway Traffic Safety Administration and the US Department of Health and Human Services, Child Health Bureau.

EMS-215 Emergency Medical Technician - Intermediate, 3 cr.
The first advanced classification of an emergency medical technician. At this level of training the EMT gains more knowledge of certain body systems and assessment. Two skills are added, intravenous therapy and advanced patient assessment. Prerequisite: EMT-Basic certification. Co-requisite: concurrent enrollment in HO211A. (Formerly HO-213A - EMT-I)

EMS-216 Emergency Medical Technician Lab - Intermediate - Lab, 1 cr.
Laboratory to accompany HO213A. (Formerly HO-211A)

EMS-219 EMT-Basic I & Lab, 3 cr.
This is the 1st of two courses designed to educate students to an entry level Emergency Medical Technician-Basic serving a vital link in the chain of the healthcare system. Instruction of this course is related to patient assessment in areas of basic life support, cardiac arrest, trauma, and medical emergencies. Overview of anatomy and physiology and medical terminology is included. The combined lecture/lab course provides the student an opportunity to apply cognitive knowledge and psychomotor skills in a supervised setting.

EMS-226 EMT-Basic II & Lab, 3 cr.
This is the 2nd of two courses designed to educate students to an entry level Emergency Medical Technician-Basic serving a vital link in the chain of the healthcare system. When taking this course the student will learn proper procedures to demonstrate skills necessary for the individual to provide emergency medical care at the basic level. Instructional items covered during this are related to OB/GYN emergencies, bleeding shock and trauma will be covered in detail. The combined lecture/lab course provides the student an opportunity to apply cognitive knowledge and psychomotor skills in a supervised setting.
EMS-612 Paramedic Spec. - Preparatory and Lab, 6 cr.
This is the first course in a six-course sequence to prepare the student in the roles and responsibilities of the paramedic. This course covers Module I of the DOT National Standard Curriculum for EMT Paramedics. This includes the roles and responsibilities of the paramedic, areas of medical, legal, and ethical issues; in addition, promotion of wellbeing, illness and injury prevention and how they pertain to the paramedic's role will be discussed. Other areas covered will be general principles of pathophysiology; emergency pharmacology; medication administration, gaining venous access, therapeutic communications and life span development. The lab component of this course will include safe measures for lifting and moving patients, proper use of protective equipment and procedures for personal protection from disease, safe administration of medications and principles of venous access; all will be practiced and demonstrated. Principles of universal precautions will be emphasized throughout the course.

EMS-614 Paramedic Spec. - Trauma & Lab, 4 cr.
This is the third course in the Paramedic sequence. The course includes Module 4 (Trauma) of the DOT National Standard Curriculum for EMT Paramedics. Content will include mechanism of injury, and the skills and management of soft tissue and burn injuries, as well as head, neck, chest, abdominal and other musculoskeletal trauma. The lab component of the Paramedic Specialist - Trauma course includes assessment and management of patient with shock and hemorrhage, burns, soft tissue, spinal cord, thoracic, abdominal, and musculoskeletal injury which will be practiced and demonstrated using the Paramedic Specialist skills check list.

EMS-615 Paramedic Spec. - Clinical, 3 cr.
This course introduces the student to the policies and procedures of a hospital internship where skills learned in previous courses will be practiced while being supervised in various hospital departments.

EMS-616 Paramedic Spec. - Field, 3 cr.
This course introduces the student to a beginning ambulance field experience. Students will apply knowledge and skills learned in previous courses while completing supervised ambulance runs. P/Q grading.

EMS-619 Airway & Patient Assessment, 4 cr.
This course can only be taken after successful completion of Paramedic Specialist-Preparatory courses. It is the second didactic and lab course in the Paramedic sequence. The course includes Module 2 (Airway Management and Ventilation) and Module 3 (Patient Assessment) of the DOT National Standard Curriculum for EMT Paramedics. Content will include advanced airway management physical assessment, field assessment, clinical decision making, documentation and the assessment and management of respiratory emergencies. The lab component of this course includes skills in airway management and ventilation, history taking, techniques of physical examination, patient assessment, clinical decision making, communication and AHA ACLS. All will be practiced and demonstrated.

EMS-624 Paramedic Spec -Special Consideration/Lab, 4 cr.
This is the sixth course in the Paramedic Specialist sequence. The course includes Module 6 (Special Considerations) of the DOT National Standard Curriculum for EMT Paramedics. Content includes the skills and knowledge necessary to assess and manage specific age population groups including neonatal, pediatric, gerontologic patients. Special situations including chronic care patients, those who have sustained abuse/assault, culturally diverse patients as well as those with physical, mental, social and financial challenges will also be addressed. The lab component of this course will be assessment and management of special situations including neonatal and pediatric resuscitation, elderly and physical and sexual abuse, this will be practiced and demonstrated using the Paramedic Specialist - Special Considerations skills check off list.

EMS-625 PS - Assess Based Mngt/Oper/Lab, 4 cr.
This is the seventh course in the Paramedic Specialist sequence. The course includes Module 7 and 8 (Assessment Based Management and Operations) of the DOT National Standard Curriculum for EMT Paramedics. The course includes assessment and critical decision making using scenarios. Guidelines for safe medical transport, general incident management and mass casualty incident management, rescue and crime scene management, and hazardous materials incidents will also be covered. The lab component of this course will include the student assuming the role of team leader while managing common emergencies. Principles of triage and management of multiple casualty incidents, rescue operations, and hazardous materials incidents will be practiced and demonstrated. Students will also continue to work on completion of the Paramedic Specialist skills check list.

EMS-626 Paramedic Spec. - Clinical II, 4 cr.
This course is a continuation of a hospital internship all modules of the Paramedic Specialist courses must have been successfully completed before taking this course. With this course the skills learned in previous courses will be practiced while being supervised in various hospital departments.

EMS-627 Paramedic Spec - Field II, 4 cr.
This course is a continuation of a field internship all modules of the Paramedic Specialist courses must have been successfully completed before taking this course. This course is a continuation of the ambulance field experience. Students will apply knowledge and skills learned in previous courses while completing supervised ambulance runs.

EMS-628 Paramedic Spec. - Medical I and Lab, 6 cr.
This is the fourth course in the Paramedic sequence. The course includes Module 5 (Medical - Units 1-3) of the DOT National Standard Curriculum for EMT Paramedics. Content will include the skills and knowledge necessary to assess and manage medical emergencies specifically pulmonary, cardiac, and neurological emergencies. The lab component of the Paramedic Specialist - Medical I course will include assessment and management of patients with pulmonary, cardiac, neurological emergencies and will be practiced and demonstrated using the Paramedic Specialist - Medical I, skills check list.

EMS-629 Paramedic Spec. - Medical II and Lab, 6 cr.
This is the fifth course in the Paramedic Specialist sequence. The course includes Module 5 (Medical - Units 4-14) of the DOT National Standard Curriculum for EMT Paramedics. Content will include the skills and knowledge necessary to assess and manage medical, obstetrical/gynecologic and behavioral/psychiatric emergencies. The lab component of this course will include assessment and management of patient with medical, obstetrical/gynecologic and behavioral/psychiatric emergencies and will be practiced and demonstrated using the Paramedic Specialist - Medical II skills check off list.

English Composition

ENG-003 Writing Foundations, 1 cr.
Basic writing course designed for students in certificate programs.

ENG-012 Basic Writing, 2 cr.
Individualized course in general grammar review including usage and punctuation.
ENG-035  Writing Strategies, 3 cr.
Students explore various ways to develop, organize, and communicate ideas. Students learn how to write paragraphs and essays that are acceptable at the college level as well as review grammar, punctuation, spelling and sentence structure.

ENG-062  Intro to College Writing, 2 cr.
This course will prepare students for college level writing.

ENG-101  Elements of Writing, 3 cr.
Students will be provided additional practice in writing beyond the writing foundations level, if needed. A review of grammar and usage skills is included along with writing practice involving the process approach of prewriting, drafting, and rewriting. This course will not meet requirements for AA degree or AS degree.

ENG-105  Composition I, 3 cr.
Emphasis on expository and argumentative writings including a review of usage and mechanics. Prerequisite: satisfactory score on the ACT, ASSET or COMPASS as determined by Iowa Lakes policy, or completion of ENG-028.

ENG-106  Composition II, 3 cr.
Continuation of ENG-105 with emphasis on research and documentation as well as literary analysis. Prerequisite: ENG-105.

ENG-221  Creative Writing, 3 cr.
Processes and methods of creating poetry and fiction. Reading the work of professional writers and applying various techniques of imaginative writing through workshops, discussion and individual conferences.

Environmental Science

ENV-145  Conservation Biology, 4 cr.
This course examines the ecological principles used in the preservation of biological diversity. Some topics explored are population dynamics, conservation genetics, island biogeography, mathematical modeling of ecological systems, disturbance ecology, Geographic Information Systems (GIS), reserve theory and wildlife corridors. Labs will involve field work, data analysis, computer work and research.

English as a Second Language

ESL-045  ESL Reading III, 3 cr.
This course is designed to introduce students with limited English proficiency to the written language skills that will be needed in order to be successful in academic classes and in the community. While its focus will be primarily on the graphically related skills of reading and writing, it will also introduce students to basic speaking and listening skills as well as expand vocabulary, grammar, and syntax knowledge. It is designed as the reading companion course to English as a Second Language Intermediate Writing. Prerequisite: ESL Compass reading score above 70.

ESL-051  ESL Writing III, 3 cr.
This course is designed to introduce students with an intermediate English proficiency to the written language skills needed to be successful in college classes and in the community. It will introduce students to basic writing skills as well as expand vocabulary, grammar and syntax knowledge. Prerequisite: ESL Compass score below 70.

ESL-065  ESL Reading IV, 3 cr.
This class continues a student's development of the Cognitive Academic Language Proficiency (CALP) skills required for college reading success. Prerequisite: ESL-045 or ESL Compass reading score above 70.

ESL-071  ESL Writing IV, 3 cr.
This course is designed to introduce students with an intermediate English proficiency to the written language skills needed to be successful in college classes and in the community. It will introduce students to basic writing skills as well as expand vocabulary, grammar and syntax knowledge. Prerequisite: ESL-051 or ESL Compass writing score above 70.

ESL-074  ESL Listening/Speaking IV, 3 cr.
This course is designed to introduce students with limited English proficiency to the oral language skills that will be needed in order to communicate successfully in academic classes and in the community. Students will learn the basics of note taking in lecture, audio, and audio visual presentation in academic situations. They will learn how to gist, how to recognize important points, organize and outline information presented in audio and visual formats. They will also learn the basics of small group communication, including appropriate preparation, roles, small group dynamics, cultural variations, and small group facilitation and leadership, writing assignments will include classification, analysis, analogy, and other expository devices. They will also be exposed to a variety of dialects, speech patterns, idioms, and cultural forms of communication appropriate to the classroom/college experience. Additionally, students will receive extensive instruction in pronunciation necessary for academic discourse. While its focus will be primarily on the oral skills of listening and speaking, it will also introduce students to basic reading and writing skills as well as expand vocabulary, grammar, and syntax knowledge. Prerequisite: ESL Compass score below 67.

ESL-087  ESL Listening/Speaking V, 3 cr.
This course is designed to introduce students with limited English proficiency to the oral language skills that will be needed in order to communicate successfully in academic classes and in the community. Students will learn the basics of note taking in lecture, audio, and audio visual presentation in academic situations. They will learn how to gist, how to recognize important points, organize and outline information presented in audio and visual formats. They will also learn the basics of small group facilitation and leadership. Writing assignments will include classification, analysis, analogy, and other expository devices. They will also be exposed to a variety of dialects, speech patterns, idioms, and cultural forms of communication appropriate to the classroom/college experience. Additionally, students will receive extensive instruction in pronunciation necessary for academic discourse. While its focus will be primarily on the oral skills of listening and speaking, it will also introduce students to basic reading and writing skills as well as expand vocabulary, grammar, and syntax knowledge. Prerequisite: ESL-074 or ESL Compass score 67 and above.

Environmental Studies

EVS-112 Biological Science for Water Quality, 4 cr.
Biological Science for Water Quality - Biological Science for Water Quality is designed to provide students with a basic understanding of the principals of biology encountered in the water quality technology field, including introductory biological, ecological, and microbiological concepts.

EVS-113 Physical Science for Water Quality, 4 cr.
Physical Science for Water Quality is designed to provide students with a basic understanding of the principles of physics and chemistry encountered in the water quality technology field, including introductory physical and chemical concepts.

EVS-114 Environmental Studies I, 4 cr.
Environmental Studies I is an introduction to ecology and environmental science. This course acquaints the student with the rela-
EVS-124 Environmental Studies II, 4 cr.
Environmental Studies II is an introduction to the study of global resources management and the analysis and control of environmental pollution. This course acquaints the student with the fundamentals of resource management and the physical, chemical, and biological analysis of pollutants that contaminate the Earth's biosphere. Topics covered include global resources, resource management, environmental pollution and pollution control. Lecture and laboratory.

EVS-173 Intro to Water Resources, 3 cr.
Introduction to Water Resources is designed to provide the student with a basic understanding of surface water and groundwater resources, the environmental problems associated with these resources, and the techniques utilized to manage and use these resources.

EVS-203 Environmental Seminar I, 1 cr.
Environmental Seminar I is an opportunity for career exploration and development of job seeking skills. Emphasis is placed on familiarization of environmental and conservation agencies, resumes' preparation, and job seeking skills including preparation of job correspondence and application forms, and participation in job interviews.

EVS-204 Environmental Seminar II, 1 cr.
Environmental Seminar II is an opportunity to prepare for participation in cooperative education and to develop a presentation to be made in a seminar format. Emphasis is placed on continued development of job seeking skills, preparation for the Environmental Studies Practicum, and the skills needed to prepare and make a presentation addressing a current environmental topic.

EVS-205 Water Quality Seminar, 1 cr.
Water Quality Seminar is an opportunity for career exploration and development of job seeking skills. Emphasis is placed on familiarization of water quality agencies and businesses, resumes' preparation, and job seeking skills including preparation of job correspondence and application forms, and participation in job interviews.

EVS-214 Water Quality Analysis, 4 cr.
Water Quality Analysis is designed to provide the student with a basic understanding of water pollution and its impact on water quality; physical, chemical, and biological parameters utilized to determine the quality of water; and the laboratory techniques performed to measure those water quality parameters.

EVS-224 Water Distribution & Wastewater Collection Systems, 4 cr.
Water Distribution and Wastewater Collection Systems is designed to provide the student with a basic understanding of the hydrology and hydrologic characteristics of water, the characteristics and capacity of the components of distribution systems, the characteristics and capacities of the components of collection systems, and the mathematical procedures performed to monitor and evaluate the effectiveness of distribution and collection systems.

EVS-234 Introduction to Environmental Technology, 4 cr.
Introduction to Environmental Technology places an emphasis placed on the recognition, inventory, and evaluation of environmental pollutants. Attention is given to the sources and types of environmental pollutants and the problems that they create. Topics covered include environmental impact, air pollution, water pollution, and hazardous materials.

EVS-244 Environmental Technology Techniques, 4 cr.
Environmental Technology Techniques places an emphasis on the problems associated with environmental pollution and the techniques available to monitor, document, and control environmental pollution. Attention is given to those environmental problems that may cause sickness or impaired health in humans. Topics covered include environmental regulations, environmental safety, control of pollutants, and waste management.

EVS-254 Intro to Natural Resources Management, 4 cr.
Introduction to Natural Resources Management places an emphasis on the recognition, inventory, and conservation of natural resources. Attention is given to the distribution and availability of natural resources and the limitations associated with their usage. Topics covered include management of natural resources, hydrospheric resources, lithospheric resources, and atmospheric resources. Lecture and laboratory.

EVS-264 Natural Resources Management Techniques, 4 cr.
Natural Resources Management Techniques places an emphasis on the problems associated with the usage of natural resources and the techniques available to evaluate, develop, and manage natural resources. Attention is given to renewable resources and the management techniques that can be utilized to best conserve these resources. Topics covered include wildlife management, forest and recreational land management, agricultural and range management, and fisheries management.

EVS-274 Water Processing, 4 cr.
Water Processing is designed to provide the student with a basic understanding of the characteristics of processed water, the technologies utilized to process water, the operation of water distribution and processing systems, and the laboratory techniques performed to monitor and evaluate the effectiveness of water processing.

EVS-284 Wastewater Treatment, 4 cr.
Wastewater Treatment is designed to provide the student with a basic understanding of the characteristics of wastewater, the techniques utilized to treat wastewater, the operation of wastewater collection and treatment systems, and the laboratory techniques performed to monitor and evaluate the effectiveness of wastewater treatment.

EVS-941 Practicum, 4 cr.
Environmental Studies Practicum is an opportunity for students to gain hands-on experience in a field and/or laboratory setting through a cooperative education agreement between the college and the sponsoring agency, business, or individual. The practicum is meant to be an actual job situation in environmental technology or natural resources management.

EVS-946 Water Quality Internship, 6 cr.
Water Quality Internship is an opportunity for students to gain hands-on experience in a field and/or laboratory setting through a cooperative education agreement between the college and the sponsoring agency, business, or industry. The internship is meant to be an actual job experience in water quality technology.
Graphic Communications

GRA-118  Electronic Publishing, 3 cr.
Basic understanding of the components used in an electronic publishing system and an introduction to desktop publishing. Emphasis is on using a computer for page layout using existing art, creating art and combining text and art to create page layouts and output to hard copy. Software training on Adobe InDesign.

GRA-121  Digital Drawing, 3 cr.
Graphic image design introduction using the Adobe® Illustrator program. Students will create both black and white and multicolor graphics using Illustrator’s tools and menu commands. A vinyl cutting project will be completed.

GRA-140  Digital Imaging I, 3 cr.
This introductory course covers the core concepts associated with digital imaging. Adobe Photoshop is used for creating, manipulating, and enhancing digital images for print and screen-based media. Students learn how to effectively use this software in a graphic design environment; planning and carrying out professional digital imaging projects. This course introduces both basic visual design concepts and a comprehensive understanding of digital workflow, providing the student with a foundation for print, web, interactive, animation, and game design projects.

GRA-141  Digital Imaging II, 3 cr.
This course advances the ideas and techniques taught in Digital Imaging I with an emphasis on Adobe Photoshop CS5 3D tools, and exporting images for use in Adobe After Effects and Flash multimedia projects. Students will also explore advanced techniques in the use of curves, levels, blending modes, special effects, as well as painting and drawing tools. Students will be challenged as a designer working with real-world projects. Prerequisite: GRA-140

GRA-158  Web Multimedia, 3 cr.
This course focuses on the creation of web animations and practical knowledge regarding basic video capturing, editing and how to create it for presentations, video CDs/DVDs and the web. Students will gain practical knowledge of image animation for the web and how to capture video for different formats, edit the video, convert it for use in different platforms and how to burn it to CD or DVD. Popular software will be used to create and manipulate images and to explore various video and audio formats including streaming video.

GRA-162  Web Page Graphics, 3 cr.
An introduction to the creation of graphics and animation for use on web pages using current software programs such as Adobe Photoshop, Illustrator, and Flash. This course first introduces the standard Web based image formats and then quickly moves into the Flash environment. Flash concepts include animation basics, tweening, Flash symbols and instances, buttons, movie clips, and beginning ActionScript.

GRA-166  Web Animations, 3 cr.
This course advances the ideas introduced in Flash I (GRA-228) to create interactive and media rich content for a variety of projects. As this is an advanced level course, you’ll be expected to excel in your projects through your efforts. Students will continue working on time and sound sequencing, storyboard planning for information mapping and animations, rendering files and documents for CD or the Internet. Students will learn advanced ActionScript 3.0 scripting technologies that extend the creative function of web animation. Unique vector and raster methods will be employed while working with software such as Adobe Flash. Students will further their problem solving abilities to utilize time and materials for solutions to distinct interactive problems.

GRA-175  Graphic Design, 3 cr.
Students work with advanced design problems and concepts. Emphasis is placed on the design and preparation of a resume and portfolio.

GRA-188  Advert Layout & Composition, 3 cr.
Balance, proportion and harmony as they apply to printed images on paper. Type selection, copy-fitting, use of ornaments and the psychology of advertising are included.

GRA-228  Flash I, 3 cr.
This introductory course focuses on developing an understanding of manipulating two-dimensional objects into an animation for the
web. Students will work with storyboards, vector graphics, timing and key framing, sound, nesting and scenes, and rendering. Project's final output will be posted on the web or produced for CD. Major software used in this course includes Adobe Flash, Adobe Photoshop, and Adobe Illustrator. All aspects of course projects will be completed by the student - this includes original imagery, sound and video, and artwork. The assignments will acquaint students with the needs and procedures of creating 2D web animations for the market and still be a balance of both web and video animation.

GRA-234  Dreamweaver Level I, 3 cr.
This introductory course focuses on the proper use of web technologies to design and develop web sites. You will use Adobe Dreamweaver to learn how to create properly structured XHTML and Cascading Style Sheet documents, incorporate images, work with colors and backgrounds, present data in tables, and use CSS for laying out web pages.

GRA-235  Dreamweaver Level II, 3 cr.
This course focuses on Advanced CSS and XHTML as well as benefits of web standards and their role in Search Engine Optimization. Topics include CSS navigation methods, advanced CSS layouts and techniques, working with and styling forms, formatting and styling tables, frames and framesets, styling and controlling pages for print, alternative media style sheets, controlling presentation for mobile devices, and working with multiple style sheets.

GRA-236  Dreamweaver Level III, 3 cr.
Combines skills learned from Dreamweaver Levels 1 & 2 with server-side languages and databases such as PHP and MySQL. Topics include PHP syntax and language operating environment, using control structures, loops, and arrays in PHP, form processing, database manipulation, handling record sets, data validation, and concepts and design of Content Management Systems.

GRA-720  Photoshop 6 for Absolute Begin, 1 cr.
This course teaches students the use of Photoshop with simple, detailed, step-by-step instructions. Online course; P/Q grading.

GRA-721  Introduction to Photoshop 6, 1 cr.
This course teaches students to use layers, filters, actions, blends, composites, seamless patterns, fill layers, and the free transform command. Online course; P/Q grading.

GRA-730  Photoshop 7 for Absolute Beg, 1 cr.
How to use PhotoShop with simple, detailed, step-by-step instructions for working with graphics on a personal computer. Online course; P/Q grading.

GRA-801  Graphic Design Seminar I, 1 cr.
Opportunity for career exploration and development of job seeking skills. Emphasis is placed on familiarization of businesses employing graphic designs, resume preparation, and job seeking skills including preparation of job correspondence and application forms, and participation in job interviews for the purpose of obtaining a graphic design internship.

GRA-802  Graphic Design Seminar II, 1 cr.
This class is for the student preparing to graduate. It enables the student to compile accomplished works into a quality presentation. Both a traditional case portfolio and a digital portfolio will be developed.

GRA-928  Independent Study, 1 cr.
Independent study or a special project in art.

GRA-932  Internship, 2 or 4 cr.
Supervised, paid work experience in a business or industry involved in an area of graphic design.

Health Care Administration

HCA-110  Health Care Administration I, 3 cr.
This course is designed to provide the learner with a basic knowledge of the long term care environment and the administrator's role in this environment. Historical perspective, organizational structure, human resource management, the health care environment, and management of quality and change will be emphasized.

HCA-111  Health Care Administration II, 3 cr.
Building on the team approach to providing services, this course will identify the types of service units with which the administrator will have contact and/or will manage. Each service unit will be examined in depth.

HCA-112  Health Care Administration III, 3 cr.
This course is designed to provide the learner with basic knowledge of building design, layout and facility maintenance; physical plant construction and financing. The Life Safety Building Code will be reviewed.

HCA-120  Legal and Political Aspects Health Care, 3 cr.
This course presents an overview of the legal issues facing the health care industry, in particular the nursing home industry. It provides students with a basic understanding of health care law and an overview of a wide variety of health care legal and political issues. Learners are provided with practical information of health law and its application to the working environment of health care administration.

HCA-125  Health Care Accounting, 1 cr.
Accounting as related to the health care industry including understanding financial statements and ratios; preparing an operating budget; using financial analysis to help with decision-making.

HCA-130  Communication With the Elderly, 3 cr.
The process of aging and its effects on communication behavior. An introduction to communication theories and principles as they apply to communication with the elderly. Skills and strategies for facilitating more satisfying and effective communication between the students and the elderly.

HCA-135  Gerontology, 3 cr.
Introduction to the issues and problems relating to the process of aging and the later stages of the adult life cycle. The physical aging process, the roles of the aged in our society and the complex psychological and sociological aspects of aging are covered.

HCA-163  Intro to Senior Living Communities, 3 cr.
This course is an introduction to assisted living, congregate and continuing-care retirement communities. It focuses on administration, resident services, marketing and sales, ancillary services and contracts.

HCA-280  Health Care Practicum I, 2 cr.
Examines the leadership role of the administrator and the processes of planning, organizing and directing for which an administrator is responsible. The purpose and use of policies and procedures in facility management are discussed.

HCA-281  Health Care Practicum II, 3 cr.
Examines the nature, scope and performance of each segment of the team providing services to the resident-client.
HCA-282  Health Care Practicum III, 2 cr.
Examines the planning, operation and maintenance of the physical plant, including planning for emergency situations.

HCA-283  Health Care Admin Practicum IV, 2 cr.
Exposes students to the legislative/political process, to state nursing home organizations and to the role of the administrator in the political arena.

HCA-284  Health Care Admin Practicum V, 2 cr.
Studies the sources of institutional revenue and expense.

HCA-285  Health Care Admin Practicum VI, 1 cr.
Observation of all departments within residential care facilities, hospitals and other health care facilities.

HCA-946  Seminar, 1 cr.
Seminar for those planning to take the Iowa state board examinations for licensure.

**Hospitality Culinary & Management**

HCM-104  Applied Food Service Sanitation, 4 cr.
Information and practices to help the food service manager apply sanitation procedures to food handling from purchasing and storage to preparation and serving to patrons. This course is part of the National Restaurant Association curriculum development program and certification.

HCM-105  Food Fundamentals, 4 cr.
Reviews the skills and attitudes needed for successful employment in the food service industry. This course and its components are the latest additions to the ProMgmt program. ProMgmt is a college-level curriculum driven by industry research and academic excellence and created by the educational foundation of the National Restaurant Association and the Culinary Institute of America.

HCM-141  Food Production, 5 cr.
Preparation of menus and serving foods and aesthetic appeal for dining rooms. Emphasizes meat, vegetables and dessert cookery. Sanitation, quality and cost of foods served to consumers are stressed.

HCM-206  Food Lab I, 2 cr.
An elective course designed to introduce students to the actual operation of quick service institutional cookery, cafeteria operations and banquets.

HCM-208  Food Lab 3, 2 cr.
An elective course designed to introduce students to the actual operation of quick service institutional cookery, cafeteria operations and banquets.

HCM-209  Food Lab 4, 2 cr.
An elective course designed to introduce students to the actual operation of quick service institutional cookery, cafeteria operations and banquets.

HCM-214  Culinary Media/Networking, 3 cr.
Culinary Media/Networking explores how the media affects the culinary world through trends, advertising, and business opportunities. It also examines the evolution of the media's development as a tool to reach millions regarding food, food safety, and cooking styles. Students produce a food-related video or audio clip.

HCM-229  Nutrition for the Life Cycle, 4 cr.
Practical, 'how-to' course focusing on nutrition as it relates to personal health; foods, and food preparation; menu planning and recipe codification; and marketing of nutritious menu items in the food service industry.

HCM-237  Modified Diets, 4 cr.
Focuses on the basic principles of diet therapy and menu modification for several diseases. Covers nutrition assessment, care plans, anthropometric measurements, diet history and diet instruction.

HCM-240  Menu Planning & Design, 2 cr.
Menu Planning and Design introduces the concepts of planning menus for institutional and restaurant food service operations with emphasis on customer expectations and how the menu planner identifies those in establishing a workable menu format. Topics include an overview of menu planning considerations, menu marketing and design, and specific criteria for selected restaurants and institutional menus.

HCM-245  Design & Layout of Foodservice Facilities, 3 cr.
Design and Layout of Food Service Facilities investigates the purchase, installation, operation, and routine maintenance of food service equipment. Related topics of design, atmosphere, space allocation and wise energy management will be addressed. The purpose of this class is to discuss the myriad of decisions a new restaurateur or food service manager will be faced with as they enter the industry.

HCM-265  Mathematics for Hospitality, 3 cr.
Reviews the fundamentals of mathematics, including methods of figuring percent, discount, mark-up, mark-down and interest. Problems related to the hospitality industry and practice on the ten-key calculator will be included.

HCM-310  Hospitality Law, 3 cr.
Provides an awareness of laws concerning hotel-motel management and illustrates the possible consequences of failure to satisfy legal obligations.

HCM-319  Intro to Hospitality Field, 3 cr.
A detailed look at restaurant and institutional food service operations, hotel and motel management, travel, tourism and international hospitality. Students will learn to better evaluate career opportunities, learn the level of quality and service necessary in an ever-changing industry.

HCM-330  Hospitality Personnel Management, 2 cr.
Hospitality Personnel Management introduces concepts relevant to managing and communicating in the hospitality organization by presenting a perusal of the managerial process. Topics include personnel planning, organizing, staffing, directing, motivating, and problem-solving skills necessary for effective management. Additional topics cover the development of management as a discipline, theories and styles of management as well as contemporary functions of the managerial role.

HCM-451  Job Seeking Skills II, 2 cr.
Students are exposed to a variety of hospitality areas through field trips and interaction with people currently in the hospitality industry. The class will involve job seeking skills and include actual job search and interviewing experience. A continuation of HCM-450.

HCM-590  Housekeeping Management, 3 cr.
This course is designed to provide important technical information for persons seeking careers in the housekeeping professions - planning and organizing to...
or related business.

On-the-job training, usually full-time, in a hotel, motel, restaurant and cooperation as required in the hospitality industry. P/Q grading.

HCM-591 Housekeeping Management, 3 cr.
Technical information for persons seeking careers in the hospitality management area. Covers the day-to-day complexities of the housekeeping profession, from planning and organizing to budgeting, supervising and performing the work itself. Certification course offered through the American Hotel and Motel Association.

HCM-592 Convention Management, 3 cr.
A course designed to provide practical insight into the different kinds of meetings and conventions, the types of organizations that stage such events, and the people who hold the key to site selection. To provide advice and suggestions on how to reach and sell to these important groups and people. To learn how to analyze a hotel property to determine which segments of the market may be sold and serviced successfully and how to organize a staff to go after desired business. Practical advice is also given on how to finalize an event through negotiations and letters of agreement.

HCM-593 Restaurant Management, 4 cr.
Introduces the principles of modern restaurant and food service management: purchasing, storing, inventory, food service equipment, menu design, restaurant design and food service operations.

HCM-594 Food & Beverage Management, 4 cr.
Includes buying food in quantity and methods of food production for large groups with practical experience gained in a laboratory study of sales, service and control of beverages.

HCM-595 Front Office Operations/Night Audit, 4 cr.
Emphasizes the efficient operation of the front office area, including reservations, greeting guests, hotel-motel services and payments. Charge account systems and controls, billing methods, checkout procedures and a learning experience with an accounting posting machine are included.

HCM-705 Hospitality Club Activities, 1 cr.
Developing leadership, teamwork, communication, commitment and cooperation as required in the hospitality industry. P/Q grading.

HCM-707 Hospitality Club Activities II, 1 cr.
Developing leadership, teamwork, communication, commitment and cooperation as required in the hospitality industry. P/Q grading.

HCM-709 Hospitality Club Activities III, 1 cr.
Developing leadership, teamwork, communication, commitment and cooperation as required in the hospitality industry. P/Q grading.

HCM-711 Hospitality Club Activities IV, 1 cr.
Developing leadership, teamwork, communication, commitment and cooperation as required in the hospitality industry. P/Q grading.

HCM-938 On-The-Job Training, 5 cr., 6cr.
On-the-job training, usually full-time, in a hotel, motel, restaurant or related business.

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**Heating, Air Cond, & Ventilation Technology**

HCR-102 Intro to HVAC, 3 cr.
An introduction to HVAC systems, with an emphasis on electrical and mechanical fundamentals skills, including AC and DC electricity; electrical power supplies and wiring materials; meter operations; mechanical math and measurement; fasteners; and PVC assembly.

HCR-112 Heating Fundamentals, 3 cr.
This course covers fundamental principles and skills for all common heating systems. This course is a combined lecture and lab course and includes discussions and demonstrations in heating fundamentals. Safety is greatly emphasized as students are working with actual voltages, and working equipment.

HCR-125 Oil & Hydronic Heating, 3 cr.
This course is a combined lecture and lab course studying the theory and applications in electrical resistance and oil and hydronic heating systems as they relate to residential and commercial heat loss requirements. Studies include installation, troubleshooting wiring and control circuits.

HCR-155 Troubleshooting Heating Systems, 3 cr.
The purpose of this course is to introduce the student to the fundamentals of troubleshooting by utilizing a practical and systematic approach to locate and repair heating system malfunctions. The student will also have the opportunity to study, in detail, the motors and controls used in today's heating systems. Topics to be covered include basic electric circuits, electrical test meters, motors and controls, diagnosis of electrical and mechanical malfunctions, and special emphasis on wiring diagrams.

HCR-205 Air Conditioning Principles, 3 cr.
This course is a combined lecture and lab course which deals with the fundamentals of residential air conditioning systems. Emphasizes system components, types of refrigerants, principles of heat transfer, and diagnosis and repair of various systems used in the air conditioning industry. Studies relationship to temperature and pressure variance including psychrometric comparison as applied to commercial and residential air conditioning.

HCR-240 Troubleshooting Air Conditioning Systems, 3 cr.
The purpose of this course is to introduce the student to the fundamentals of troubleshooting by utilizing a practical and systematic approach to locate and repair air-conditioning and heat pump system malfunctions. The student will also have the opportunity to study, in detail, the motors and controls used in today's air-conditioning and heat pump systems. Topics to be covered include basic electric circuits, electrical test meters, motors and controls, diagnosis of electrical and mechanical malfunctions, and special emphasis on wiring diagrams.

HCR-291 Commercial Systems, 3 cr.
This course covers all types of commercial heating and cooling systems. Systems included are air cooled and water cooled air conditioning systems, cooling towers, water chillers, gas and electric heating systems for heating air and water, industrial heating systems including direct fired make up air equipment. Commercial water heaters and controls will also be discussed.

HCR-305 Fundamentals of Refrigeration, 3 cr.
This course is a combined lecture and lab course covering the theory and laws governing refrigeration, the operation of refrigeration systems, heat transfer, components, and test equipment. It also covers the different soldering and brazing methods and materials used in refrigeration service. Emphasis is on the recovery, recycling and charging methods used.
HCR-414 Controls for HVACR, 4 cr.
This course presents a more advanced study of electrical controls and their applications, an introduction electronics and the controls used in the H.V.A.C.R. systems.

HCR-444 HVACR Systems I, 4 cr.
This course presents alternative application of energy sources and equipment as they apply to heating, ventilation, air cooling, and refrigeration systems.

HCR-505 Air Distribution, 3 cr.
A study of the construction and design of duct work and related duct fittings. Includes correct layout and sizing of ducts, return and supply grills, and use of airflow measuring instruments.

HCR-810 Energy Management, 3 cr.
This course is designed to examine the consumption of energy in commercial and industrial buildings and how energy usage may be reduced.

HCR-932 Internship 4 cr.
On the job training for Heating, Air Conditioning, and Ventilation program. Prerequisite: HCR-102

History

HIS-110 Western Civilization: Ancient to Modern, 3 cr.
Surveys the origins of human civilization in the Near East, the great rise of Greece and Rome and concludes with the Enlightenment.

HIS-111 Western Civilization: Modern to Present, 3 cr.
Examines an extremely dynamic phase of European and world history.

HIS-151 U.S. History to 1877, 3 cr.
Study of national foundations, colonial background, revolution, confederation and institutions; nationalism and expansion. The growth of democracy and war plus reconstruction are analyzed.

HIS-152 U.S. History Since 1877, 3 cr.
Covers re-union growth of big business, expansion and World War I, rise to world power, isolation, modern industry, depression, recovery and internationalism.

HIS-201 Iowa History, 3 cr.
Provides an understanding of the history of Iowa as it relates to international history. Special attention is given to ethnic groups and their contributions.

HIS-251 U.S. History 1945 to Present, 3 cr.
Investigation of the rise of the United States after World War II to the modern country of the present. Topics include: aftermath of World War II, nuclear power, the Cold War, Vietnam, diplomacy, presidential power, and family life.

HIS-255 American Indian History & Culture I, 3 cr.
A survey of the important events and cultures of the Native American people from the earliest times to the reservation era. The survey will be limited to the Native people of the United States and Alaska.

HIS-257 African American History, 3 cr.
Deals with the experience of blacks in the history of the United States. Topics include African Heritage, the slave trade, slavery in the Antebellum South, the Civil War and emancipation, the Jim Crow era, the Harlem Renaissance, the civil rights struggle, and modern black America.

HIS-285 Classical Heritage, 3 cr.
An introduction to music and art in the western world. The period from Classical Greece to the present is studied.

Health Information Technology

HIT-244 Basic CPT Coding, 3 cr.
Systematic coding concepts using CPT/HCPCS coding and classification systems. Emphasis is placed on assigning and classifying valid procedure codes in ambulatory care, emergency room, operating room and physician office settings. Students work with actual medical records, placing emphasis on accuracy outpatient coding guidelines and conventions, reimbursement and billing as well as compliance issues.

HIT-245 Basic ICD-9-CM Coding, 3 cr.
Classification of disease and diagnostic processes through ICD-9 coding, placing emphasis on accuracy, concepts and compliance issues. ICD-9 coding is used for identification of medical necessity in procedures, reimbursement, utilization patterns and the study of health care costs.

HIT-312 Health Informatics and Information Management Systems, 3 cr.
The health information professional plays a central role in the delivery of health care including the development and implementation of the electronic health record and management of data. This course introduces the student to basic principles of health information management, basic concepts of clinical data management and overview of information technology.

HIT-601 Medical Transcription, 2 cr.
Develops proficiency in the use of dictation and transcription equipment. Medical cases will be utilized to acquire skills that will enable the student to design and transcribe 7 types of reports utilized in the medical offices and clinics today. Application, proofreading as well as medical terminology and anatomy is continuous within the learning process. Pre-req: CSC-110 & HSC-114 Co. Req: Bio-168, BIO-173, & HSC-217

Health Sciences

HSC-105 Introduction to Health Occupations, 1 cr.
This course introduces both the variety and requirements for health care careers. Basic core knowledge and professional expectations common to all health careers are explored. Workplace safety, an overview of the health system and current trends are also covered.

HSC-109 Exploring Health Careers & Building Teams, 3 cr.
Student will discover the main options available, including roles and responsibilities, in health career options. This course is designed to provide the student with the information necessary to make their health career choice. Prerequisite: HSC-105

HSC-114 Medical Terminology, 3 cr.
Studies medical terminology, including spelling and definitions.

HSC-134 First Aide/CPR, 1 cr.
Emergency care for the injured. Airway management, hemorrhage control, care for shock victims, CPR/lifesaving skills.

HSC-145 Pharmacology in Nursing, 3 cr.
Provides the student or practicing LPN or RN with a reliable and current pharmacological basis, emphasizing the nurse’s role in applying the knowledge of medications to patient care.
HSC-146 Medication Aide, 2 cr.
This 50 hour medical aide course is for certified Nurse Aides or Residential Attendants and prepares them to administer oral medication in long term care facilities, as outlined by the Iowa Department of Public Health.

HSC-151 Dosage Calculations, 1 cr.
Dosage Calculations emphasizes the basic math skills and dosage calculations required of nurse professionals. P/Q grading.

HSC-152 Dosage Calculations, 2 cr.
This course provides an in-depth review of basic math skills necessary to calculate drug dosages. Dimensional analysis will be utilized to apply these skills to dosage calculations for nursing students. P/Q grading.

HSC-153 Concepts in Pharmacology, 3 cr.
Concepts in Pharmacology introduces the student to concepts of drug actions and interactions. This course focuses on the principles of pharmacology and commonly utilized classifications of medications.

HSC-161 Normal Nutrition A, 1 cr.
Building on basic knowledge of the nutrients this course explores current issues related to nutrition including consumer health, nutrition styles throughout the lifestyle, religious and cultural factors, weight control, and physical fitness.

HSC-163 Nutrition, 3 cr.
Provides the student with a basic background of the nutrients which are essential in maintaining the physical and mental well-being of the human body. An overview of the digestive process and its relationship to each group of nutrients is presented. Basic nutritional principles of food selection are studied with an emphasis on health promotion throughout the life cycle. Students examine their personal eating habits and identify ways to promote a healthy nutritional status.

HSC-172 Nurse Aide, 3 cr.
The academic component of the program preparing persons for employment as a nurse aide in long term care and in skilled nursing units in Iowa’s Hospitals. The clinical component may be accomplished by completing HSC-177. Upon satisfactory completion of both course, which meet both federal and state requirements, the student is eligible to write the state-approved competency examination and skill test for certification. 

HSC-177 Nurse Aide II, 3 cr.
Classroom and clinical experience combine to provide training in basic nursing skills, attitudes and understanding the role of the nurse aide. Prerequisite: HSC-172.

HSC-186 Human Growth and Development, 3 cr.
Exploration of the normal characteristics, physical, social and emotional development of individuals from infancy through the aged adult. This course will include a discussion of how the various theorists view the stages of growth and development through the lifespan.

HSC-187 Human Growth and Development – Adult, 1 cr.
An exploration of the normal characteristics, physical, social and emotional development of individuals from the young adult through the aged adult. This course will include a discussion of how various theorists view the stages of growth and development through the lifespan.

HSC-192 Emergency Preparedness, 1 cr.
This course focuses on knowledge and skills to prepare and respond in an emergency situation. Students will receive training in basic infection control, first aid techniques, cardiopulmonary resuscitation (CPR) and emergency preparedness for natural disasters.

HSC-194 Rehabilitative/Restorative Aid, 3 cr.
Prepares persons who are working as nurse assistants with the knowledge and skills to safely and effectively provide rehabilitative therapies under the direction of a physical therapist or occupational therapist. Prerequisite: knowledge and skills at the nurse assistant level and experience working with chronically ill or aging residents or patients.

HSC-202 Health Informatics, 2 cr.
Health Informatics will provide an overview of basic computer skills as well as introduce the student to concepts related to information literacy and management. Utilization of informatics within the healthcare delivery systems including application of the Health Information Portability and Accountability Act (HIPAA) will be included.

HSC-217 Introduction to Pathology, 3 cr.
This course is designed to provide the student with the body systems disease process by presenting the disorders, etiology, progression, signs and symptoms and standard approaches to diagnosis and treatment.

HSC-223 Human Relations, 2 cr.
Designed to promote understanding of human interactions, including motivation, emotion, intelligence, personality as well as social relations with application to the institutional setting and manager/employee and employee/employee relationships.

HSC-235 Supervision in Health Care, 2 cr.
Assists registered nurses and licensed practical nurses in gaining knowledge and developing skills useful in managing personnel and client care.

Human Services

HSV-140 Social Work and Social Welfare, 3 cr.
Goals, values and legal aspects of the social work professionals. Roles of social workers in human service institutions. Service learning experience at an agency is included.

HSV-162 Intro to Human Disabilities & Services, 3 cr.
Introduces classifications, etiology, characteristics, educational and vocational considerations of persons with disabilities.

HSV-225 Counseling Techniques, 3 cr.
This is an introductory course in applied counseling techniques. Students are introduced to a variety of facilitative skills and counseling concepts and work through the interviewing process in simulated helping service settings.

HSV-284 Case Management, 3 cr.
This course introduces students to the value base of human services and helping professions. Addresses strategies and practices used in assessing and evaluating client needs, establishing
and identifying resources and making appropriate referrals. Intake interviews and assessments are explored. Students will develop knowledge and basic skills in the area of programming and developing support systems and community resources. Students will increase awareness of working with high-risk populations.

HSV-293 Substance Abuse and Treatment Planning, 3 cr.
This course is designed to introduce students to a multidimensional approach to assessment in making objective patient placement decisions for various levels of care for the treatment and care of substance-related disorders. This course will help prepare students for their practicum experience. Prerequisite: DSV-135.

HSV-901 Substance Abuse Practicum I, 3 cr.
Supervised experience in a chemical dependency agency as approved by the program coordinator and Iowa Board of Certification for Substance Abuse.

HSV-902 Substance Abuse Practicum II, 4 cr.
Supervised experience in a chemical dependency agency as approved by the program coordinator and Iowa Board of Certification for Substance Abuse.

Journalism

JOU-115 Introduction to Journalism, 3 cr.
Students receive an overview of the journalism profession. Emphasis focuses on the fundamental principles of news gathering and writing, copy reading, proofreading, editing, and newspaper makeup. Substantive areas include the history and contemporary state of journalism.

JOU-120 Beg News Writing, 3 cr.
This course will cover the processes of understanding what is news, methods of gathering information for news stories, writing stories, editing principles, writing cut lines and headlines, editorials and feature stories, for print, audio and video. Students will contribute stories to the college newspaper, radio and television newscasts and supplement the stories with video.

JOU-121 Newswriting and Reporting, 3 cr.
The process of understanding what is news, methods of gathering information for news stories and writing news stories; editing principles, writing headlines and photo captions, editorials and feature stories.

JOU-140 Newspaper Lab I, 2 cr.
Provides the student with the skills and knowledge of newspaper operations, including deadline pressures, story writing, photography, editing, layout and beats.

JOU-141 Newspaper Lab II, 2 cr.
Continuation of JOU-140.

JOU-171 Introduction to Photography, 3 cr.
Introduction to the 35mm camera: selection and handling; theory of light; lenses and focusing; depth of field and film types; composition; film processing and basic darkroom techniques.

JOU-173 Digital Photography, 3 cr.
Basic digital theory, how the digital camera works. Includes digital capture; input into the computer; digital manipulation; basic PhotoShop and photography; saving digital images for future use and long term archiving on zip disks, CD’s and hard drives; how to print digital images; and how to send digital images after formatting for sending.

JOU-174 Adv Black and White Photography 3 cr.
Advanced black and white techniques with darkroom experimentation in lighting, design, and creativity using a 35mm camera and several speeds of black and white film. Lectures and classroom critiques will also be utilized. Prerequisite: JOU-171.

JOU-177 News, Forensics & Advertising Photography, 3 cr.
This course will teach the basic photographic skills needed to create publishable news photographs using 35 mm film and digital cameras as well as basic photographic skills needed to create photographs for advertising use and basic crime scene photography. Prerequisite: JOU-171, JOU-173.

JOU-180 Digital Imaging for Professionals, 3 cr.
This course will develop skills needed for adjusting and enhancing photographic images after image capture and before going to a final output. The emphasis will be on images used in the photography professions of Portrait, Photojournalism Commercial, and Forensic. All image manipulations and adjustments will be done with computer imaging software, such as Photoshop.

JOU-190 Foundations in Digital Media Marketing, Writing, and Community Engagement, 3 cr.
Designed to acquaint students with the fundamentals of digital reporting through digital media including Internet, social media, photography, video, audio, and multimedia as it applies to journalism. Instruction will include conceptual frameworks and techniques to create multimedia journalism content; the connection to multimedia stakeholders, marketing strategies, and community building; coverage of events with multimedia approaches; the technical and creative aspects of digital writing; delivery platforms for multimedia content including the Web and evolving communication technologies.

JOU-200 AP Style Editing, 3 cr.
The course will train you in editing copy in Associated Press style. You will review punctuation, spelling of problem words, and many other editing difficulties. You will practice the art of critical thinking when reading newspapers. If you are a good copy editor, you will be a good writer. This course will prepare you to be a good journalistic writer through the editing process. As a professional writer, your work must be completed with attention to every detail and this course will help to hone these necessary skills. In the professional world, errors can end careers.

JOU-210 Media Law and Ethics, 3 cr.
Legal, ethical and business concerns surrounding the mass media, as contemporary issues and from historical perspectives.

JOU-220 Advanced Newswriting, 3 cr.
This course follows a basic journalism writing course. Students will develop advanced skills in writing in AP style, research and news gathering, and identifying news stories. They will learn how to develop news sources, how to develop multiple stories from one source or meeting, and how to write multiple-source stories.

JOU-240 Newspaper Lab III, 2 cr.
Continuation of JOU-141.

JOU-241 Newspaper Lab IV, 2 cr.
Continuation of JOU-240.

JOU-941 Practicum, 2 cr., 5 cr.
Practical work experience related to journalism.
LGL-111 Introduction Law and Paralegal, 3 cr.
An introduction to the legal profession with special emphasis on
the responsibilities of the paralegal. Students will learn the core
skills required of paralegals, including verbal and written commu-
nication, critical thinking and analytical reasoning, and investiga-
tion and case management. The course also addresses the ethi-
cal obligations of paralegals.

LGL-120 Intro to Law & Paralegal, 2 cr.
An introduction to the legal profession, with special emphasis on
the responsibilities of the paralegal. Students will learn the core
skills required of paralegals, including verbal and written commu-
nication, critical thinking and analytical reasoning, and investiga-
tion and case management.

LGL-121 Law Office Software, 1 cr.
This course familiarizes students with law office specific software
applications. A representative law office software platform will be
utilized to present students with hands-on exercises to further
their understanding of the various functions of law office software.
Students will also be introduced to and utilize Iowa Docs, a wide-
ly utilized, state-specific, legal form-generating software.

LGL-122 Legal Ethics, 2 cr.
This course will introduce students to the types of ethical dilem-
mas that they will face in the law office setting; generally to the
ethical rules developed by the American Bar Association, to the
rules adopted by this jurisdiction for the regulation of attorney and
paralegal conduct, to the model codes of paralegal associations;
and to methods for researching the answers to ethical dilemmas.

LGL-140 Wills, Trusts and Estate Admin, 3 cr.
A study of wills, trusts, probate procedures, estate administration
taxes, and testate and intestate succession. Students will learn
how to draft basic wills, trusts, and advance health care direc-
tives. Students will also learn how to administer a typical estate.

LGL-151 Legal Research & Writing I, 4 cr.
Introduction to the legal research and writing process with an
emphasis on writing case briefs and objective memoranda of
law.

LGL-152 Legal Research & Writing II, 4 cr.
An advanced application of the legal research and writing pro-
cess with an emphasis on writing persuasive memoranda and
briefs.

LGL-154 Legal Research, 4 cr.
This course introduces students to various print and electronic
legal research media, with a heightened focus on state of Iowa
and federal statutory and case law. Students will learn how to
carry out legal research assignments using both primary and sec-
ondary resources. The methods of updating and expanding
research and how to properly cite legal sources in memoranda
and other documents will also be presented. Print and electronic
methods for finding legal authority will be utilized.

LGL-161 Legal Writing, 4 cr.
In this course, students will utilize and apply the research skills
developed in Legal Research (LGL 151), to research and draft
opinion letters and other types of legal correspondence, an objec-
tive interoffice memorandum, and a persuasive motion brief.
Appellate briefs will also be introduced. A foundational aspect
of the course will be developing students' legal reasoning skills.

LGL-180 Torts and Litigation, 3 cr.
A study of tort law, including negligent, intentional, and strict liabil-
ity torts. Students will learn how to draft pleadings, discovery
requests, and pretrial documents in tort cases.

LGL-200 American Trial Process, 3 cr.
A study of the American trial process. Students will research,
prepare and present a hypothetical case to a judge and jury.

LGL-205 Employment Law, 3 cr.
Study of what law applies to the Employment setting.
Introduction to Employment Discrimination, Whistleblower
Protection, Wage and Hours laws, Sexual Harassment, Worker's
Compensation, Employer Tort Liability, Unemployment Insurance,
and liability issues arising under OSHA, ERISA and other Federal
Statutes.

LGL-210 Contract Law, 3 cr.
This course surveys the basic principles of contract law, including
capacity, formation, conditions, enforcement, statute of frauds,
performance and breach, remedies, defenses, and third-party
rights. Portions of the Uniform Commercial Code relating to con-
tracts for the sale of goods will also be discussed. The role of the
paralegal in gathering information, researching, and drafting con-
tract documents is emphasized throughout.

LGL-230 Criminal Law & Procedure, 3 cr.
Examination of the more common crimes, criminal defenses and
the procedures used to process a criminal case from arrest to
final disposition.

LGL-240 Civil Procedure and Practice, 4 cr.
A study of civil procedure using the civil procedure rules.
Students will learn how to draft demand letters, pleadings,
motions, discovery, and judgments. Students will also learn how
to prepare a small claims case.

LGL-242 Civil Procedure & Practice, 3 cr.
Introduces students to the various practice rules of procedure in
the civil court system, and the role of a paralegal at every stage
of pre-trial litigation. The rules of civil procedure and evidence at
both the state and federal level will be emphasized. Topics cov-
ered include initial client contact, interviewing, investigation and
identification of claims and issues, initiating and responding to the
lawsuit, the discovery process, settlement, trial preparation, and
preparation and filing of appropriate litigation documents.

LGL-250 Family Law, 3 cr.
Study of law and procedures relative to marriage, dissolution and
adoption.

LGL-771 Introduction to Criminal Law, 1 cr.
An in-depth look at criminal law and the real world of prosecutors,
defense attorneys, and the paralegals who work closely with them.

LGL-772 Evidence Law, 1 cr.
As courts get more crowded, busy attorneys are relying more and
more on paralegals, legal secretaries and law clerks to help them
gather and evaluate evidence and prepare cases for trial. This
course will provide background information in these exciting
areas of law.

LGL-773 Legal Term/Process/Ethics/Tort, 1 cr.
Provides an overview of the American judicial system focusing on
the origins of American law and the litigation process.

LGL-774 Legal Documents and Analysis, 1 cr.
Provides an overview of common legal documents. You will pre-
pare sample documents and learn to analyze legal problems.
American society.

strength and values that cultural diversity brings to contemporary

range of ethnic, racial and other culturally diverse groups.

voices that are in an undeniable part of modern American life.

Exploration of a variety of literary types.

The cultural and ethnic

LIT-134 Multicultural Literature, 3 cr.

Exploration of a variety of literary types. The cultural and ethnic

voices that are in an undeniable part of modern American life. Students read, discuss and critique materials representing a wide range of ethnic, racial and other culturally diverse groups. Emphasis centers on the assessment and appreciation of the strength and values that cultural diversity brings to contemporary American society.
today. Application, proofreading, as well as anatomy and medical terminology will be utilized and improved during this course.

MAP-141 Medical Insurance, 3 cr.
Edicates the student in the area of health insurance and billing. Develops an understanding of all health insurance plan options, expansions as well as modifications in state and federal regulations. Instruction will be given in the areas of processing health insurance claims, planning options, carrier requirements, state and federal regulations, abstracting relevant information from source documents, accurately completing claim forms, and coding diagnoses and procedures.

MAP-233 Medical Laboratory Procedures, 4 cr.
Laboratory safety measures and familiarization with the care and use of laboratory equipment. Urinalysis techniques including collection, physical examination and microscopic examination of urine specimens. Microbiology classification and the collection and preparation of microbiological specimens.

MAP-253 Limited Radiology I, 3 cr.
Provides the foundation principles of physics and radiographic imaging necessary for the practice of limited radiology. Emphasis is on the application of the scientific concepts.

MAP-254 Limited Radiology II, 4 cr.
Introduces positioning for the practice of limited radiology. Prerequisite: MAP-253.

MAP-330 Career Prep Medical Asst, 1 cr.
Teaches necessary skills for successful resume writing and job interviewing. Prepares medical assistants for their summer practicum with practical application of learned skills. Orients students to the Practicum experience.

MAP-342 Clinical Assisting I, 3 cr.
On-the-job training to provide students with training in medical asepsis; infection control; interviewing and obtaining patient information; vital signs; vision screening; assisting the physician with various physical examinations; instructing patients with physical therapy needs; and performing electrocardiograms.

MAP-343 Clinical Assisting II, 3 cr.
Further on-the-job training in aseptic techniques and assisting with minor surgery examinations, including the identification and use of instruments; sterilization and disinfection techniques; sterile dressing application; and cast application and care.

MAP-402 Medical Law and Ethics, 2 cr.
This course is designed to provide the student with legal and ethical knowledge to make proper professional judgments. Topics include legal issues pertinent to the medical and chiropractic clin- ics. Major bioethical and ethical issues are included.

MAP-453 Medical Assisting Mental Hlth, 2 cr.
The basic principles of psychology as they apply to the student’s personal, social and vocational life.

MAP-512 Pharmacology, 2 cr.
This course introduces the Allied Health student to concepts of drug actions and interactions with focus on principles of pharmacology. Students will learn to utilize drug reference books with review on medical terminology as it pertains to prescriptions, documentation, medication administration, medication classifications, and mechanism of action.

MAP-515 Pharmacology, 3 cr.
Commonly administered drugs, their uses and the effect on the body. Information on correct dosage, methods and routes of drug administration, dosage calculation and the legal and ethical standards for the administration and dispensing of drugs by the physician.

MAP-940 Medical Secretary Practicum, 3 cr.
On-the-job training in a position related to the student’s career goal.

MAP-941 Practicum, 3 cr.
On-the-job training in a position related to the student’s career goal.

MAP 942 Limited Radiology III Practicum, 2 cr.
Students will transfer knowledge gained from Limited Radiology I and II into the clinical setting. The student will perform a total of 80 hours of clinical experience, completing 12 clinical competencies. Six hours of face to face lecture will include instruction of special radiologic views prior to beginning the clinical rotation. Prerequisite: MAP-254.

Mathematics

MAT-004 Mathematics Foundations, 1 cr.
Basic mathematics course designed for students in certificate programs.

MAT-005 Math Refresher, 1 cr.
Developmental studies course. Individualized course, which reviews whole numbers, fractions, decimals, percents and ratios.

MAT-054 Math Strategies, 3 cr.
Developmental studies course that reviews whole numbers, integers, fractions, decimals, percents, ratios, proportions, and graphing utilizing basic algebra.

MAT-100 Elementary Algebra, 3 cr.
This is a beginning course in algebra. Topics include operations on real numbers and algebraic expressions; solving linear equations and their application; factoring; simplifying fractional expressions; radicals and quadratic equations. Does not count toward the mathematics requirement for the AA or AS degree.

MAT-101 Intermediate Algebra, 3 cr.
This course includes the basic properties of the real number system, fundamental operations on algebraic expressions, graphs of functions and relations, radicals, exponents, quadratic equations, inequalities and complex numbers. Students will learn to use graphic calculators to enhance their understanding. Does not apply to the Math requirement for the AA or AS degree.

MAT-102 Intermediate Algebra, 4 cr.
This course includes the basic properties of the real number system; fundamental operations on algebraic expressions; graphs and functions and relations; radicals; exponents; quadratic equations; graphing calculators to enhance their understanding. Prerequisite: Appropriate mathematics assessment score. Does not count toward the mathematics requirements for the AA or AS degree.

MAT-110 Math for Liberal Arts, 3 cr.
This is a general survey course which includes sets; number systems; elementary algebra; exponents; equations and inequalities; fractions; ratios; proportion and variation; probability and statistics; elementary graphing; consumer mathematics; and an introduction to geometry.
MAT-117 Math for Elementary Teachers, 3 cr.
Basic mathematical content pertinent to elementary teaching. Topics include problem solving, set theory, number systems and bases, number theory, informal geometry, measurement and elementary probability, and statistics. Does not count toward the mathematics requirement for the AA or A.S. degree.

MAT-120 College Algebra, 3 cr.
Operation of real and complex numbers; factoring; exponents; quadratic equations; inequalities; matrices; rational functions; logarithmic functions; and graphing or functions. Prerequisite: MAT-102 or equivalent.

MAT-121 College Algebra, 4 cr.
Topics include linear functions and inequalities; quadratics; conics; polynomials and rational functions; exponential and logarithmic functions; linear systems; matrices and determinants. Additional topics may include sequences, series, permutations, combinations and probability. Prerequisite: MAT-102 or equivalent.

MAT-127 College Algebra & Trig, 5 cr.
Course combines college algebra and trigonometry. Algebra topics include functions and their graphs; solving equations and inequalities; polynomial functions; conic sections; and exponential and logarithmic functions. Trigonometry topics covered are right triangle trigonometry; unit circles; trigonometric functions; graphing; verifying identities; solving trigonometric equations; and applications of trigonometry. Prerequisite: MAT-101 or equivalent.

MAT-130 Trigonometry, 3 cr.
Trigonometric functions and their inverses: verifying identities; right triangle trigonometry; unit circles; radian measure; graphing; trigonometric functions; solving trigonometric equations; and applications of trigonometry. Prerequisite: MAT-050, MAT-101, MAT-770, MAT-772, or equivalent.

MAT-140 Finite Math, 3 cr.
An applied mathematics course dealing with mathematics related to most academic disciplines. It provides introduction to matrices, linear programming, combinations, permutations, statistics, mathematics of finance and logic.

MAT-156 Statistics, 3 cr.
Introductory statistics class stressing data-centered topics rather than the more traditional path from probability to formal inference. Prerequisite: MAT-101 or 2 years of high school algebra or equivalent. Prerequisite: MAT-101 or 2 years of high school algebra or equivalent.

MAT-157 Statistics, 4 cr.
The use of statistics by the methods of descriptive and inferential statistics. Both single and bivariate data are analyzed. Elementary probability and normal probability distributions are studied along with hypothesis testing, linear correlation regression analysis, and analysis of variance. Prerequisite: MAT-101 or 2 years of high school algebra or equivalent.

MAT-210 Calculus I, 4 cr.
Provides the student with a foundation in calculus and analytical geometry. Topics include analytical geometry; differentiation and applications of the derivative; integration and its applications. Graphics calculator is required. Prerequisite: MAT-127 or equivalent.

MAT-211 Calculus I, 5 cr.
A general course in differential and integral calculus and its applications. Topics include limits and continuity; differentiation; applications of differentiation; integration; logarithmic, exponential and other transcendental functions; and applications of integration. Prerequisite: MAT-127 or equivalent.

MAT-217 Calculus II, 5 cr.
Continuation of MAT-211. Integration techniques, sequences, infinite series, conic sections, parametric equations, polar coordinates, vectors, cylindrical and spherical coordinates, and vector-values functions. Prerequisite: MAT-211 or equivalent.

MAT-218 Calculus III, 3 cr.
Continuation of MAT-217. Explores functions of several variables; partial derivatives; directional derivatives and gradients; multiple integration; vector analysis; and a brief look at differential equations. Prerequisite: MAT-217 or equivalent.

MAT-225 Differential Equations, 3 cr.
Students learn to recognize various types of differential equations and learn how their solutions behave. Topics include solving first and second order differential equations; applications; systems of equations; series solutions; existence theorems; numerical methods; and partial differential equations.

MAT-227 Differential Equations with Laplace Transforms, 4 cr.
Students learn to recognize various types of differential equations and learn how their solutions behave. Topics include solving first and second order differential equations, applications, systems of equations, Laplace transforms and series solutions, existence theorems, numerical methods, and partial differential equations. Prerequisite: MAT-217

MAT-743 Technical Mathematics, 3 cr.
Technical Mathematics includes operations with real numbers, use of fractions, ratios, measurement conversion, algebraic equations, functions, geometry, and right angle trigonometry. Applications are designed around situations students may encounter in industrial settings.

MAT-770 Applied Math, 2 cr.
Mathematics as it applies to the student’s program of study. A review of whole numbers, fractions, decimals, percentages, the metric system, linear measurement and common formulas used in each particular industry.

MAT-772 Applied Math, 3 cr.
A course in elementary mathematical skills for technicians. Topics covered include fundamental operations with whole numbers, fractions, decimals and signed numbers; percents; geometric figures and basic constructions; area and volume formulas; English/Metric systems; measurements; and the interpretation of graphs and charts.

MAT-785 Agricultural Math, 2 cr.
Reviews the basic principles of elementary algebra and mathematics as they relate to basic agricultural problems.

Manufacturing

MFG-126 MSSC Quality Practices and Measurement, 2 cr.
Teaches students to: participate in periodic internal quality audit activities; check calibration of gages and other data collection equipment; suggest continuous improvements; inspect materials and product/process at all stages to ensure they meet specifications; document the results of quality tests; communicate quality problems; take corrective actions to restore or maintain quality; record process outcomes and trends; identify fundamentals of blueprint reading; and use common measurement systems and precision measurement tools.
MFG-505 Lean Manufacturing, 1 cr.
This course covers the principles and techniques of lean manufacturing. Topics include lean principles, value stream mapping, total productive maintenance, manufacturing cells, office cells, setup reduction, pull systems and continuous improvement.

MFG-527 MSSC Maintenance Awareness, 2 cr.
This course will teach students to: Perform preventive maintenance and routine repairs; Monitor indicators to ensure correct operations; Perform housekeeping to maintain production schedule and recognize potential maintenance issues with basic production systems.

MFG-528 MSSC Safety, 2 cr
This course will teach students to: work in a safe and productive manufacturing workplace; perform safety and environmental inspections; perform emergency drills and participate in emergency teams; identify unsafe conditions and take corrective action; provide safety orientation for employees; train personnel to use equipment safely; suggest processes and procedures that support safety of work environment; fulfill safety and health requirements for maintenance, installation, and repair; monitor safe equipment and operator performance; and utilize effective, safety-enhancing workplace.

MFG-529 MSSC Manufacturing Processes and Production, 2 cr.
This course will teach students to: identify customer needs; determine resources available for the production process; set up equipment for the production process; set team production goals; make job assignments; coordinate work flow with team members and other work groups; communicate production and material requirements and product specifications; perform and monitor the processes to make the products; document product and process compliance with customer requirements; and prepare final product for shipping or distribution.

Management

MGT-101 Principles of Management, 3 cr.
Introduces modern management background, organization and principles, managerial planning and control policies and procedures of business firms.

MGT-110 Small Business Management, 3 cr.
Practical approach to the study of establishing and operating a small business. Emphasis will be placed on discussion of case situations and on arriving at viable solutions to day-to-day operational problems.

MGT-130 Principles of Supervision, 3 cr.
An overview of the supervisory job. Basics of supervision and management, including effective human relations skills such as communication, motivation, improving performance and leading work teams. Centers on management functions of planning, organizing, controlling and evaluating. Introduction to key supervisory techniques including delegation, appraisal and counseling.

MGT-131 Principles of Supervision, 4 cr.
This course covers the development of supervision as a managerial directing function. Skills and personal traits of the supervisor, motivation and cooperation attitudes as they pertain to both the individual and the group. Coordinating the requirements and needs of employees and management to achieve organizational goals.

MGT-165 Principles of Quality, 3 cr.
Principles and success factors for quality improvement for work group supervisors. Focus on skills and knowledge needed by supervisors to lead quality improvement in their work areas. Quality philosophies, concepts and improvement actions will be highlighted. Programs such as ISO 9000 and the Malcolm Baldridge Award will be discussed. Participants will prepare quality improvement plan for their work groups.

MGT-170 Human Resource Management, 3 cr.
Students will learn each step of the process, including developing a job description; advertising; evaluating resumes; pre-screening candidates; negotiating employment agreements; planning and monitoring orientation programs for new employees; and the importance of up-to-date policies.

MGT-173 Training and Employee Dev, 1 cr.
Training from employee orientation through progressive job training. Determining training objectives, conducting training and evaluating results. How supervisors plan, prepare, conduct, follow up and measure the benefits of work group training.

MGT-178 Employment Law, 3 cr.
Study of the "legalese" of workplace law, covering hiring, firing, promoting, and disciplining employees. Students will learn proper reference checking procedures, sexual harassment issues, equal employment opportunity and affirmative action policies.

MGT-190 Employee Compensation/Benefits Mgmt, 3 cr.
This course focuses on monitoring and organizational benefits such as health, dental, FMLA, wage continuation, workers’ compensation and retirement programs. Students will be introduced to a market survey compensation philosophy and will also learn and practice the tools needed to implement this philosophy. The Manpower Planning Process will also be introduced with discussion of the need and importance of conducting this new survey.

Marketing

MKT-110 Principles of Marketing, 3 cr.
Fundamental principles of the flow of goods and services from producer to consumer, including buying, selling, transportation, storage, finance, advertising and market information as they relate to the marketing structure.

MKT-140 Principles of Selling, 3 cr.
Studies the concepts of selling. Includes an understanding of the customer; realizing the importance of product knowledge; securing and conducting sales presentations, analyzing and handling different types of customers; steps in selling; and the importance of maintaining good will. Personality development and principles of selling are stressed.

MKT-142 Consumer Behavior, 3 cr.
External influences such as culture, social class and family situations; internal influences such as motivation, attitudes, lifestyles and learning; various models of consumer behavior and how consumer behavior fits into marketing strategy.

MKT-150 Principles of Advertising, 3 cr.
Fundamentals and principles of advertising as they pertain to the marketing process. Understanding consumer motivation, identifying the target market, types of media and creation of ads are included.

MKT-155 Visual Merchandising, 4 cr.
The principles and elements of design and their relationship to an effective display. Hands-on experience in creating effective displays and planning a visual merchandising schedule. Students learn about display materials and store layout in relation to effective selling.
MKT-162  Retail Merchandising, 3 cr.
Techniques and procedures used in determining profits, pricing of goods, inventories and merchandise control. Typical problems faced by merchandisers are presented, analyzed and solved.

MKT-171  Retail Buying, 4 cr.
The procedures involved in buying for a retail merchandising business. Emphasis is placed on markets, record keeping, market planning and purchasing of merchandise to cover planned sales, fashion promotions and customer wants, needs and desires.

MKT-290  Professionalism: DEX/DECA, 1 cr.
Introduction to DECA and what the organization has to offer. The course helps the student gain a better understanding of Distributive Education Clubs of America.

MKT-291  Professionalism ii: DEX/DECA, 1 cr.
This course helps develop competent professionals in marketing management and merchandising. Delta Epsilon Chi contributes to occupational competence by promoting greater understanding and appreciation for the responsibilities of citizenship in our private enterprise system.

MKT-292  Professionalism lii: DEX/DECA, 1 cr.
Continuation of the professional development training in DECA.

MKT-293  Professionalism Iv: DEX/DECA, 1 cr.
Continuation of MKT-292 with more opportunities for professional advancement.

MKT-938  On-The-Job Training, 2 cr.
Introductory work experience in the operational phases of the modern retail market. Assignments are tailored to the student’s needs, including basic merchandising, displays, cash register experience and selling to customers. Students are supervised by the coordinator of the program and assigned to work directly under a specific store manager who serves as the on-the-job trainer.

Mass Media Studies

MMS-101  Mass Media, 3 cr.
An introductory course that studies mass media and society. The class includes a historical and contemporary overview of industries, professions, processes and social effects of the mass media.

MMS-105  Audio Production, 3 cr.
Audio production in both radio and television. The main focus is a radio production. Class discussion and lectures focus on coordination of audio board operation and announcing; creating and producing radio commercials; familiarizing the student with the Smartcaster; and following a playlist. Lab exercises help students develop radio control-board skills, production skills, discipline and structure.

MMS-115  TV Studio Production, 3 cr.
Basic operation of a television studio. Students will become familiar with the operation of equipment in the studio (cameras, floor directing, on-camera talent) and control room (directing, the character generator, audio, video). Emphasis will be on practical hands-on elements of studio production.

MMS-122  Career Seminar, 1 cr.
This course studies the variety of careers available within the digital and social media profession. As the role of the traditional broadcast journalist has experienced a merging of responsibilities from its counterparts, the emphasis of this course will be to provide the students with an opportunity to explore new and emerging media technologies. The curriculum will be mainly built around presentations from guest speakers and field trips.

MMS-129  Digital Audio & Video Production Editing, 3 cr.
This class will introduce the student to not only digital video and audio production but also editing. Students will develop control-board skills, production skills, discipline and structure in addition to identifying video production elements including camera, lighting, audio, switching, editing and special effects.

MMS-130  Video Field Production, 3 cr.
Study of the equipment used in field/remote video productions. Students will participate in several single camera field productions, including shooting, directing and post-producing.

MMS-145  Broadcast Writing, 3 cr.
An instructional workshop for developing the skills to write for audio and video. Students will contribute stories to the college television newscast and possibly supplement the stories with video.

MMS-211  Advanced Video Editing, 3 cr.
This course takes students past the single-source/cuts-only editing system into advanced editing techniques. Students utilize A/B Roll/multiple source systems in addition to computer based editing systems (non-linear).

MMS-225  Advanced Television Production, 3 cr.
Production of pre-scripted programs for the local cable public access station. Students will perform as crew members in various studio productions. Prerequisite: MMS-115.

MMS-230  Advanced Video Production, 3 cr.
Production of advanced single and multi-camera productions. Focus on producing field programs outside the studio environment for the local cable public access channel. Programs will include college and community activities such as city council meetings.

MMS-234  Radio Workshop, 4 cr.
Radio station operations and practices in the college radio station. The majority of the programming and performance of the station will be the responsibility of students in this course. Prerequisite: MMS-105.

MMS-241  Public Relations & Marketing, 3 cr.
Public relations methods used for effectiveness and the art of persuasion throughout the organization of corporate communications.

MMS-298  Portfolio Preparation, 0 cr.
The portfolio consists of the student’s traditional copy resume, audio demo tape and video resume tape prepared for job application requests.
Students gain specific skills in a practical job setting. Experience at broadcasting institutions or other approved facilities.

Lecture and laboratory. Co-Req: MSE-143

Types of circuits, usage of a VOM and other electrical test equipment. Study of Ohm’s Law, electrical symbols, problem solving, correct service procedures, troubleshooting, failure analysis and advanced theory are included. Prerequisite: first semester of program. (Formerly MM-128C)

Motorcycle Technology

MOT-128 Motorcycle Engines Two and Four Stroke, 2 cr.
Construction and design of motorcycle engines, both two- and four-stroke. Correct service procedures, troubleshooting, failure analysis and advanced theory are included. Prerequisite: first semester of program. (Formerly MM-128C)

MOT-129 Motorcycle Eng 2&4 Stroke Lab, 2 cr.
Engine disassembly, reassembly, operation of various motorcycle and ATV engines. Includes adjustment and testing of engines. Prerequisite: First semester of program. Co-requisite: MOT-131

MOT-131 Motorcycle Engine 2&4 Stroke, 3 cr.
This course includes the construction and design of motorcycle engines, both two and four stroke. Correct service procedures, troubleshooting, failure analysis, and theory.

MOT-139 Motorcycle Fuel Systems, 3 cr.
Motorcycle fuel systems including carburetion, fuel injection and oil injection. Troubleshooting, testing, adjustments and disassembly/reassembly are covered. Proper service procedures are discussed, demonstrated and practiced. Lecture and laboratory. Prerequisite: first two semesters of program.

MOT-144 Drive Systems/Chassis/Suspension, 4 cr.
This course covers the functions, construction, and operation of motorcycle drive systems, chassis, and suspension systems. Their importance in the safe operation and control of a motorcycle is discussed. Disassembly, assembly, troubleshooting, and repair of these components are covered.

MOT-146 Ignition/Electrical Systems, 3 cr.
Study of the construction, principles of operation and design of motorcycle ignition and electrical systems.

MOT-151 Shop Safety & Procedures, 1 cr.
Safe shop practices and procedures, including safe equipment operation, proper tool usage, importance of personal protective gear and how to handle emergency situations. Co-Req: MSE-143

MOT-153 Fundamentals for Electricity, 3 cr.
Basic electrical theory used in the motorcycle and small engine field. Study of Ohm’s Law, electrical symbols, problem solving, types of circuits, usage of a VOM and other electrical test equipment. Lecture and laboratory. Co-Req: MSE-143

MOT-200 Motorcycle and ATV Tune Up and Maintenance, 2 cr.
This course includes tune up procedures for both two and four stroke Motorcycle and ATV’s.

MOT-202 ATV Systems, 3 cr.
Introduction to ATV’s and all of their systems.

MOT-203 Motorcycle/ATV Tune Up/Maintenance, 4 cr.
This course includes tune up procedures for both two and four stroke engines. Since it is not only the engines that require maintenance, the maintenance items for Motorcycles and ATVs themselves are also covered in depth.

MOT-210 Advanced Drivability and Troubleshooting, 3 cr.
This course will better prepare the student for the real life drivability and troubleshooting problems that they will encounter in the field.

MOT-211 Adv Driveability & Troubleshooting, 4 cr.
This course will better prepare the student for real life drivability and troubleshooting problems that they will encounter in the field.

MOT-220 Advanced Electrical Diagnosis & Troubleshooting, 3 cr.
Advanced electrical diagnosis and troubleshooting as it pertains to the Motorcycle and Small Engine Industry.

MOT-221 Advanced Electrical Diagnosis/Troubleshoot, 4 cr.
This course provides the student with the advanced electrical diagnosis and troubleshooting skills needed to work in the Motorcycle and Small Engine Industry.

MOT-230 Advanced Fuel Systems, 3 cr.
Advanced fuel system diagnosis, troubleshooting, and tuning.

MOT-231 Advanced Fuel Systems, 4 cr.
This course will prepare the student to better diagnose, troubleshoot, and tune fuel systems. It will also better prepare them to be able to tune all types of fuel systems to be able to meet emission standards.

MOT-240 Dyno Analysis, 2 cr.
This course includes Dyno usage, data analysis, and tuning.

MOT-250 Outdoor Power Equipment, 3 cr.
An introduction to Outdoor Power Equipment.

MOT-255 Performance Engine Tuning, 2 cr.
Performance Engine Tuning as it applies to the Motorcycle and ATV.

MOT-270 Introduction to Diesel, 2 cr.
A study of the basic diesel engine used in small horsepower applications. Diesel fuel systems, turbo charging, diesel engine maintenance, and troubleshooting.

MOT-275 Introduction to Hydraulics, 2 cr.
A study of the many hydraulic systems and components used on modern equipment. Emphasis is placed on hydraulic theory and system analysis.

MOT-910 Cooperative Work Experience, 4 cr.
Student is involved in a supervised cooperative work experience in a dealership.

MOT-932 Internship, 2 cr.
On-the-job experience at a motorcycle repair facility as a technician, part and service person, or salesperson. The student is evaluated by the job supervisor and the instructor. Prerequisite: completion of the first year of the program.
Marine Service Technology

MSE-143 Small Engines Theory, 3 cr.
Basic two- and four-stroke engine theory, design and construction. All basic systems are studied, as well as troubleshooting, failure analysis and repair procedures. Service literature, warranties and engine identification are covered.

MSE-146 Small Engines Laboratory, 3 cr.
Complete disassembly and reassembly of modern engines, troubleshooting, failure analysis and proper repair techniques. Hands-on testing and inspection of engine systems. Corequisite: MSE-143.

MSE-147 Introduction to Marine Service, 2 cr.
Course covers basic system operations of boats and off season storage, including how to properly operate a boat, dock and tie up a boat, the purpose of instrument gauges and accessories, marine industry terminology and how to identify various serial numbers. Considerable practice will be provided in properly winterizing boats and personal watercraft for off season storage.

MSE-148 Introduction to Marine Detailing, 1 cr.
This course will cover basic detailing of boats and personal watercraft, to include removal of mild oxidation; wax build up and fine scratches, how to properly restore optimum gloss, especially on dark colors, and how to provide long lasting protection from harmful UV rays. You will additionally learn how to clean and protect teakwood. This course provides practice in basic correct use of a buffer, detail cleaners, waxes, polishes and protectants, how to identify specific problems and possible solutions.

MSE-149 Introduction to Marine Rigging, 2 cr.
This course will cover basic rigging operation of boats and personal watercraft, including how to properly install motors and all necessary wiring, how to properly determine what motor should be installed and how to install gauges, depth finders, stereos and other equipment. The course will also include trailer set up procedures, the purpose of instrument gauges and accessories on boats. Factory service manuals, electronic and paper, will be used to look up parts as you learn marine industry terminology and how to identify various serial numbers on motors.

MSE-150 Shop Management, 3 cr.
In this course, students learn proper shop management procedures including parts ordering, inventory, repair order writing, payroll, employee-employer relations, customer relations and communication skills, sales and service in the service center, warranty procedures on marine products, computerized parts/billing systems and waste management procedures.

MSE-151 Shop Safety and Procedures, 1 cr.
Safe shop practices and procedures, including safe equipment operation, proper tool usage, importance of personal protective gear and how to handle emergency situations.

MSE-152 Drive System Fundamentals, 2 cr.
Introduction to the various types of drives which may be encountered. Construction, operation, maintenance and repair of outdoor power and other systems including transmissions; clutches; belt drives; sprockets and chain drives; and hydrostatic drives. Assembly, disassembly, inspection, troubleshooting and repair of these systems is covered. Lecture and laboratory. (Formerly SM-152C)

MSE-153 Fundamentals of Electricity, 3 cr.
Basic electrical theory used in the small engine and marine field. Study of Ohm's Law, electrical symbols, problem solving, types of circuits, usage of a VOM and other electrical test equipment. Lecture and laboratory.

MSE-154 Intro to Power Generators, 1 cr.
This course is designed to introduce gasoline and diesel powered electrical generator systems. Students will be introduced to how generators function and how to properly set up and maintain this type of power equipment. Prerequisites: MSE 151

MSE-155 Drive System Fund Theory and Lab, 3 cr.
This course is an introduction to the various types of drives and power delivery systems which will be encountered in the outdoor power equipment industry. Construction, operation, maintenance, and repair of outdoor power equipment, and other systems including transmissions, clutches, belt drives, sprocket and chain drive, hydraulics, and hydrostatic drives. Assembly, disassembly, inspection, troubleshooting, and repair of these systems are also covered. Prerequisites: MSE 143

MSE-158 Snowmobile Systems, 2 cr.
Snowmobile systems including clutches, suspensions, engines, tracks and other components are studied. Proper service techniques, troubleshooting, assembly and disassembly are covered along with a unit on performance work. Lecture and laboratory. (Formerly SM-158C)

MSE-159 Snowmobile Systems, 3 cr.
Snowmobile systems including clutches, suspensions, engines, tracks and other components are studied. Proper service techniques, troubleshooting, assembly and disassembly are covered along with a unit on performance work. Lecture and laboratory. Prerequisite: MSE 151

MSE-164 Marine Engine 2 & 4 Stroke Theory, 2 cr.
Construction and design of two- and four-stroke marine engines. Correct service procedures, troubleshooting, failure analysis and advanced theory are covered. Prerequisite: first semester of program.

MSE-165 Marine Engine 2 & 4 Stroke Theory Lab, 2 cr.
Corresponding lab to Marine Engines Two and Four Stroke Theory. Hands-on testing and inspection of marine engines.

MSE-169 Marine Dr Systems T/L, 3 cr.
This course covers operation and construction of Marine Sterndrives, Inboard Drive Systems and Outboard Gear Cases. Also covered will be disassembly, assembly, inspection, troubleshooting, failure analysis, identification, rebuilding drives, adjustments procedures, advance theory and repair procedures as well as performance testing and propeller theory.

MSE-173 Marine Fuel Systems, 3 cr.
Marine fuel systems including carburetion, fuel injection and oil injection are studied. Troubleshooting, testing, adjustments, assembly and disassembly are practiced. Proper service procedures discussed and demonstrated. Lecture and laboratory. Prerequisites: first two semesters of program.

MSE-183 Personal Water Craft Systems, 3 cr.
Theory and hands-on lab for all systems in personal watercraft including jet pumps, engines and steering systems. Repair, troubleshooting and service procedures are covered. Lecture and laboratory. Prerequisite: first two semesters of program.

MSE-189 Marine Electrical Systems T/L, 3 cr.
This course will cover the principles of operation and construction of various components in the electrical systems of a Boat such as Ignition Systems, Starting Systems, Charging Systems, Tilt and
Trim Systems, along with other accessories used in the Marine industry. Proper testing, troubleshooting, disassembly/reassembly, and installation of electrical components are also covered.

**MSE-190 Marine Electrical Systems, 4 cr.**
This course will cover the principles of operation and construction of various components in the electrical systems of a Boat such as Ignition Systems, Starting Systems, Charging Systems, Tilt and Trim Systems, along with other accessories used in the Marine industry. Proper testing, troubleshooting, disassembly/reassembly, and installation of electrical components are also covered.

**MSE-252 Marine Advanced Drivability, 3 cr.**
In this course students learn how to diagnose different fuel injection systems & their problems as well as know the difference between fuel systems. Students will be able to analyze these fuel systems along with using the latest test equipment. Each student will be able to understand and explain how these systems work. You will also learn how to use failure evaluating procedures.

**MSE-273 Marine Advanced Fuel Systems, 3 cr.**
In this course, students learn how to repair a wide variety of advanced fuel systems, for example, throttle body fuel injection, multiport fuel injection systems and direct injected fuel systems. Students practice how to properly test these systems and how to diagnose each one.

**MSE-286 Marine Advanced Electrical, 3 cr.**
In this course, students learn how to analyze electrical problems and procedures. Students understand how to go about troubleshooting different electrical problems such as ignition, hard starting, low speed engine miss, engine miss firing and engine running rough. Students will also evaluate engine running problems with different computer scanners and be able to apply these skills when they complete this course.

**MSE-932 Internship, 6 cr.**
On-the-job experience at a marine or small engine repair facility as a technician, part and service person, or salesperson. The student is evaluated by the job supervisor and the instructor. Prerequisite: completion of first year of program.

**Massage Therapy**

**MST-101 Health and Wellness, 1 cr.**
This course will provide self-care techniques to promote wellness for the Massage Therapist profession.

**MST-103 Intro to Swedish Massage, 3 cr.**
Provides a basic foundation for the courses of study in the Massage Therapy program.

**MST-110 Pathology for Massage Therapy, 2 cr.**
This course is the study of the nature and causes of disease as related to structure and functions of the body. The massage therapist focus is on maintaining health or a balanced state of physical, emotional, social well-being called homeostasis. The students will be introduced to basic pharmacology terminology with prescinations medications, recreational drugs, herbs and natural supplements.

**MST-113 Kinesiology/Anatomy & Movt for Mass Thpy, 3 cr.**
Kinesiology/Anatomy and Movement for Massage Therapy is the study of how Body Movement and its relationship to the musculoskeletal system, its mechanical aspects, and the role it plays in the use of this knowledge for the assessment and design of intervention protocols within the scope of Massage Therapy’s practice. This course will include drawing, coloring, and identifying muscles and attachments of specific movements on skeletal picture packets and how it effects movement. Prerequisite: MST-103

**MST-121 Reflexology, 1 cr.**
This course includes the modality pertaining to zones and reflex areas in the hands and feet. The students will study how the reflexes corresponds to distinct parts of the body.

**MST-123 Sport Massage, 3 cr.**
This course provides the skills and techniques to be used with athletes and individuals with sport injuries. Includes an introduction to acupuncture.

**MST-138 Spa Bodywork, 3 cr.**
This course will provide the skills and techniques to be used with Hydrotherapy, Hot Stone therapy, Aromatherapy, and Spa Therapy. The student will be introduced to the terminology of Asian, Eastern, and Traditional Methods and Bodywork. Students will be able to recognize and locate the major meridians, understand the general characteristics of the five elements, learn the names and qualities of the seven major chakras and recognize the qualities of the three Doshas.

**MST-139 Spa Bodywork, 2 cr.**
This course will provide the skills and techniques to be used with Hydrotherapy, Hot Stone therapy, Aromatherapy, and Spa Therapy. The student will be introduced to the terminology of Asian, Eastern, and Traditional Methods and Bodywork. Students will be able to recognize and locate the major meridians, understand the general characteristics of the five elements, learn the names and qualities of the seven major chakras and recognize the qualities of the three Doshas.

**MST-141 Geriatric Massage, 1 cr.**
This course will provide the skills and techniques to use with elderly clients.

**MST-143 Intermediate Massage, 3 cr.**
This course is designed to expand on skills developed in the course Introduction to Swedish Massage. Students will pair up and the classes will consist of hands on applications of body massage techniques.

**MST-149 Pregnancy/Infant Massage, 1 cr.**
This course will provide the skills and techniques to use with the pregnant and infant clients.

**MST-151 Business - Massage Therapy, 1 cr.**
An introduction to business practices for the massage therapist as an independent and as an employee. Students will be introduced to business structures and organizations, business plans, bookkeeping, legal records, marketing, professional insurance, financing, and business law. Application of principles of stress reduction and time management will be discussed.

**MST-152 Chair Massage, 1 cr.**
The course provides professional massage techniques of the head, neck, shoulders, arms, back and hips of a client seated in a special designed chair for massage. The student will be trained to do a highly visible branch of professional massage, which is done in shopping malls, airports, convention centers, supermarkets, and the workplace.

**MST-153 Deep Tissue Massage, 3 cr.**
This course is designed to expand on skills developed in the Introduction to Swedish Massage and Intermediate Massage. Students will incorporate all massage techniques learned in the past.

**MST-159 Ethics - Massage Therapy, 1 cr.**
This course assists students to understand and apply the Standards of Practice established by professional massage orga-
Organizations. The course emphasizes ethical behavior in the massage therapy profession and teaches students to establish professional boundaries and acceptable standards of documentation.

**MST-810 Massage Clinic, 1 cr.**
This course is designed for classroom lab supervised practical experiences in body massages application. The students will set up appointments for outside individuals to apply techniques for full body massages.

**Music-Applied**

**MUA-101 Applied Voice, 1 cr.**
Private applied instruction that provides students the opportunity to develop and refine performing skills.

**MUA-119 Class Piano, 1 cr.**
Instruction on piano keyboard in a classroom setting. No previous study is required for enrollment in this entry-level course. Pianos are provided for practice and performance.

**MUA-120 Applied Piano, 1 cr.**
Private applied instruction that provides students the opportunity to develop and refine performing skills on this instrument.

**MUA-124 Applied Guitar, 1 cr.**
Private applied instruction that provides students the opportunity to develop and refine performing skills on this instrument.

**MUA-126 Applied Strings, 1 cr.**
Private applied instruction that provides students the opportunity to develop and refine performing skills on a stringed instrument.

**MUA-128 Applied String Bass, 1 cr.**
Private applied instruction that provides students the opportunity to develop and refine performing skills on this instrument.

**MUA-150 Applied Tuba, 1 cr.**
Private applied instruction that provides students the opportunity to develop and refine performing skills on this instrument.

**MUA-152 Applied Bassoon, 1 cr.**
Private applied instruction that provides students the opportunity to develop and refine performing skills on this instrument.

**MUA-154 Applied Clarinet, 1 cr.**
Private applied instruction that provides students the opportunity to develop and refine performing skills on this instrument.

**MUA-156 Applied Flute, 1 cr.**
Private applied instruction that provides students the opportunity to develop and refine performing skills on this instrument.

**MUA-158 Applied French Horn, 1 cr.**
Private applied instruction that provides students the opportunity to develop and refine performing skills on this instrument.

**MUA-160 Applied Oboe, 1 cr.**
Private applied instruction that provides students the opportunity to develop and refine performing skills on this instrument.

**MUA-162 Applied Saxophone, 1 cr.**
Private applied instruction that provides students the opportunity to develop and refine performing skills on this instrument.

**MUA-164 Applied Trombone, 1 cr.**
Private applied instruction that provides students the opportunity to develop and refine performing skills on this instrument.

**MUA-166 Applied Trumpet, 1 cr.**
Private applied instruction that provides students the opportunity to develop and refine performing skills on this instrument.

**MUA-180 Applied Percussion, 1 cr.**
Private applied instruction that provides students the opportunity to develop and refine performing skills on this instrument.

**General Music**

**MUS-100 Music Appreciation, 3 cr.**
Studies the elements and history of music with concentration on critical listening skills. Includes a review of music history; styles; genres; form and content; schools of composers; and social and historical events of the past and present that influence music selections.

**MUS-102 Music Fundamentals, 3 cr.**
An introduction to the fundamental principles of traditional music, including melody, rhythm, and harmony. Emphasis is on music reading and application to performance. This course will help students prepare for Music Theory I.

**MUS-120 Music Theory I, 3 cr.**
Studies the fundamental principles of traditional theory including melody, rhythm and harmony. Key signatures, intervals and triads are also included. This is an entry level course for music majors.

**MUS-121 Music Theory II, 3 cr.**
Continuation of MUS120 which includes diatonic material, cadences, chord progression, inversions, chord spelling and part writing.

**MUS-135 Music Theory Lab I, 1 cr.**
Introduces the solfeggio system of music reading. Both tonal and rhythmic patterns are included in the sight reading exercises as well as principles of key relationships, intervals and triads.

**MUS-136 Music Theory Lab II, 1 cr.**
Continuation of principles of key relationships, intervals, triads and improvement of sight reading musical notation. All aspects of rhythmic and melodic structure are studied and practiced.

**MUS-140 Concert Choir, 1 cr.**
Provides an opportunity for talented singers to rehearse and perform choral music of many styles. There is no required audition.

**MUS-145 Concert Band, 1 cr.**
A music ensemble which studies, rehearses and performs literature for bands and wind ensembles. There is no required auditions.

**MUS-149 Pep Band, 1 cr.**
An activity designed to give students the opportunity to experience one of the many facets of college life through performance college events.

**MUS-153 Jazz Singers, 1 cr.**
Jazz Singers are the college vocal jazz choir. This group provides an opportunity for talented singers to rehearse and perform the close harmonies of vocal jazz repertoire. Auditions are held at the beginning of the fall and spring semesters.

**MUS-155 Men's Chorus, 1 cr.**
Rehearsal and performance of selected men's chorus selections with concerts and special occasion performances. Open auditions. May be repeated for credit.
MUS-156  Women’s Chorus, 1 cr.
Rehearsal and performance of selected women’s chorus selections with concerts and special occasion performances. Open auditions. May be repeated for credit.

MUS-166  Jazz Combo Improvisation, 1 cr.
Techniques of improvisation through rehearsal and performance of jazz literature through the jazz combo or small group ensemble.

MUS-170  Jazz Band, 1 cr.
Rehearsal and performance of jazz literature, with an annual tour, concerts and special occasion performances. Open auditions.

MUS-175  Woodwind Ensemble, 1 cr.
Rehearsal and performance of selected woodwind ensemble works with concerts and special occasion performances. Open auditions. May be repeated for credit.

MUS-176  Brass Ensemble, 1 cr.
Rehearsal and performance of selected brass ensemble works with concerts and special occasion performances. Open auditions. May be repeated for credit.

MUS-177  Percussion Ensemble, 1 cr.
Rehearsal and performance of selected percussion works with concerts and special occasion performances. Open auditions. May be repeated for credit.

MUS-178  Handbell Ringers, 1 cr.
Ensemble rehearsal of a wide variety of handbell music and study of the techniques of proper handbell ringing. Auditions are held at the beginning of the fall and spring semesters.

MUS-190  Jazz Improvisation, 1 cr.
Teaches improvisation through various musical styles through combo or small group ensemble. Teaches students the art of instant composition.

MUS-200  Music History I, 3 cr.
A survey of Western music literature through perceptive listening of significant forms and styles of music of Western civilization, from antiquity to the mid-18th century. Emphasis on the compositional and stylistic evolution of Western Music as evidence in the works of selected pivotal composers. Recommended prerequisites: Music Appreciation or Music Theory I.

MUS-201  Music History II, 3 cr.
A survey of Western music. Emphasis on the compositional and stylistic evolution of Western music as evidenced in the works of selected pivotal composers.

MUS-202  World Music, 3 cr.
A study of traditional music from the world’s cultures, combing elements of the arts, humanities, and social sciences. The purpose and function of music within each society will be studied, along with the instruments of each culture. The emphasis will be on experiencing and appreciating the music through video, audio, and live performances. Music from the following selected cultures will be studied: Native America, Africa, India, Asia, Latin American, and the Arab world.

MUS-203  History of American Music, 3 cr.
History of American Music examines musical development in the United States. This course will study the elements and history of American music with concentration on critical listening skills. Includes a review of American music history, styles, genres, form and content, schools of composers and social and historical events of the past and present that influence music selections. Styles include fine art music, popular styles, jazz, blues, country, musical theatre and rock.

MUS-205  Jazz History & Appreciation, 3 cr.
Studies the elements and history of jazz music with concentration on critical listening skills. Includes a review of jazz history, styles, genres, form and content, composers, and social and historical events of the past and present that influence music selections.

MUS-220  Music Theory III, 3 cr.
Continuation of MUS-121 including the study of advanced triadic structure and synthetic scales. Emphasis on analysis.

MUS-221  Music Theory IV, 3 cr.
Continuation of MUS-220.

MUS-235  Music Theory Lab III, 1 cr.
Continuation of principles of key relationships, intervals, triads and improvement of sight reading musical notation. All aspects of rhythmic and melodic structure are studied and practiced. Prerequisite: MUS-136.

MUS-236  Music Theory Lab IV, 1 cr.
Continuation of principles of key relationships, intervals, triads and improvement of sight reading musical notations. All aspects of rhythmic and melodic structure are studied and practiced. Prerequisite: MUS-235.

MUS-250  Musical Play Production, 1 cr.
Production of a musical play. Special attention will be given to singing, acting, set work, props, sound reinforcement and lighting. Open auditions.

Computer Networking

NET-122  Computer Hardware Basics, 3 cr.
How to prepare and evaluate system specifications, troubleshoot minor hardware problems, configure and install hardware, manage memory, modify and use diagnostic software.

NET-140  Networking Essentials, 4 cr.
Foundational training in local area networking technology serving as a general introduction to LANs, WANS and the internet. Topics include IQRs, network interface cards (NIC), cabling (coax, STP, UTP and fiber), ARCNET, network protocols, hubs, routers and bridges.

NET-142  Network Essentials, 3 cr.
Network Essentials introduces the networking field. The course focuses on network terminology and protocols, local area networks (LAN), wide-area networks (WANs), Open System Interconnect (OSI) models cabling, cabling tools, routers, router programming, Ethernet, Internet Protocol (IP) addressing, and network standards. Instruction and training are provided in the proper care, maintenance, and use of networking software tools, and equipment and all local, state, and federal safety, building, and environmental codes and regulations.(3/0)

NET-148  Basic Networking & Computer Technology, 3 cr.
Foundational training in local area networking technology, protocols, and installation procedures. Troubleshooting minor hardware problems, installing hardware, system configuration, and run diagnostics.

NET-304  Windows Workstation Operating Systems, 4 cr.
Installing, configuring and administering Microsoft Windows 2000 Professional.
NET-314  Windows Server, 4 cr.
Installing, configuring and administering Microsoft Windows
2000.

NET-330  Windows Networking, 4 cr.
How to support the various features of the Microsoft Information
Server (IIS). Students will learn how to install, configure and
implement all components that comprise IIS. Hands-on experi-
ence in setting up a web site is included.

NET-331  Win Networking Infrastructure, 4 cr.
Implementing and administering a Microsoft Windows 2000
Directory Network infrastructure.

NET-340  Win Active Directory, 4 cr.
Implementing and Administrating a Microsoft Windows 2000
Directory Services Infrastructure.

Designing a Microsoft Windows 2000 Directory Services infra-
structure.

NET-374  Design Windows Network Infrastructure, 4 cr.
Designing a Microsoft Windows 2000 Network infrastructure.

NET-653  Microsoft Exchange Server, 4 cr.
Designed to simulate the day-to-day activities and responsibilities
of a Microsoft Exchange Administration, the student will learn the
main functions of the Microsoft Exchange server and how to plan
and install Microsoft Exchange in a single-site environment.
Multi-site environments will also be reviewed.

NET-726  Introduction to Networking, 1 cr.
Businesses, schools, and other organizations are becoming
increasingly reliant on computer networks, which explains why
workers with networking skills are in high demand. If you’d like to
learn the fundamentals of computer networking in terms you can
easily understand, this course is for you. Learn why networks
have become so important, how software and hardware makes
networking possible, and how networks function. Course gives
you the foundation you need to begin training for CCNA
Certification or employment in a computer networking career. P/Q
grading.

NET-727  Intermediate Networking, 1 cr.
Learn real-world applications for the concepts you learned in
Introduction to Networking. You’ll gain a full understanding of
almost every aspect of networking technology, including hot top-
ics such as virtual private networks, security, and Internet con-
nectivity. Completion of this course and its prerequisite should
serve as a springboard for a career in computer networking or
training for CCNA Certification. P/Q grading.

NET-729  Network + Certification Prep, 1 cr.
This course will teach you everything you need to know to take
and pass the challenging Network+ certification exam and
become an excellent network technician. You’ll learn about topol-
ogies, the OSI Seven-Layer model, protocol suites, modern net-
work operating systems, network hardware, cabling standards,
remote connectivity, Internet connections, network troubleshoot-
ing, and more. Network+ certification also counts as one of the
elective exams for the Microsoft Certified Systems Administrator
(MCSA) certification. P/Q grading.

NET-910  Co-op Work Experience, 3 cr., 5 cr.
Supervised work experience in the information technology field.

Parts Distribution & Inventory Control

PAR-113  Parts Catalog + Lab, 3 cr.
An overview of major automotive parts systems, the reading of
parts lists, catalogs, price sheets and exploded views will be cov-
ered. Identification of manufacturer and their products. Students
will gain hands-on experience in cataloging parts. Lecture and
laboratory.

PAR-123  Parts System + Lab, 4 cr.
This course develops skills in the operation of a parts store or
automotive dealership parts department. Emphasis is on jobber
catalogs, use of computer cataloging, invoice processing and
parts sales. Students learn to handle purchase orders, repair
requests and monthly statements. Lecture and laboratory.

PAR-124  Inventory Control & lab, 3 cr.
A study of various inventory control systems used by the after-
market industry. Emphasis is on the use of state-of-the-art com-
puter inventory system. Students learn to check inventory, deter-
mine slow moving stock, ordering new stock, and arrangement of
stock. Lecture and laboratory.

Physical Education Activities

PEA-123  Circuit Training, 1 cr.
This course is designed to cover the principles and skill tech-
niques involved in circuit training. Alternating between resistance
training, cardiovascular and flexibility exercises allows for simul-
taneous improvement in muscular strength and endurance as well
as flexibility.

PEA-125  Indoor Cycling I, 1 cr.
This course is an indoor cycling aerobics class. This course intro-
duces students to a low-impact, cardiovascular workout using
stationary bicycles to improve current health and fitness levels.

PEA-130  Downhill Skiing I, 1 cr.
Designed to give the student the opportunity to enjoy downhill
skiing, including academic theory and laboratory activities.

PEA-134  Golf I, 1 cr.
Lecture and laboratory course designed to cover the basic princi-
pies and skill techniques involved in golf.

PEA-138  Lifeguard Training I, 1 cr.
Explanation, demonstration, practice and review of skills required
of lifeguards. American Red Cross certification is an option.
(formerly PEA-137)

PEA-143  Physical Conditioning I, 1 cr.
This is an introductory course designed to provide the physical fit-
ness basic skills to assist students in their preparation for the
minimum physical fitness requirements in Criminal Justice field.

PEA-146  Phys. Fitness I, 1 cr.
Develops an individual wellness program with emphasis on car-
diovascular and muscular fitness and provides the student with
periodic fitness evaluations.

PEA-164  Swimming I, 1 cr.
Introductory course covering front crawl, back crawl, elementary
backstroke, sidestroke, and breaststroke.

PEA-176  Volleyball I, 1 cr.
Lecture and laboratory course designed to cover the rules, histo-
ry, strategy and skill techniques of volleyball and provide students
time to practice as well as test their skill and knowledge of the
activity.
Lecture and laboratory course designed to cover the basic principles and skill techniques involved in weight training.

To provide an opportunity for students to improve their overall muscular strength and endurance through resistance training. A variety of exercises will be presented utilizing resistance bands, body bars, dumbbells, and fitness balls.

Continuation of PEA-130.

This course is a continuation of PEA-143. This course will continue to provide the physical fitness skills needed to assist the student in their preparation for the minimum physical fitness requirements in the Criminal Justice field.

Continuation of PEA-146.

Lecture and laboratory course designed to increase knowledge, understanding and skill techniques involved in weight training. Continuation of PEA-187.

This course is a continuation of PEA-244. This course will continue to provide the physical fitness skills needed to assist students in their preparation for the minimum physical fitness requirements in the Criminal Justice field.

Lecture and laboratory course designed to cover the advanced principles and skill techniques involved in weight training.

This four-part course includes coaching theory, sports medicine, sports psychology and sports physiology. It leads to coaching authorization for the State of Iowa as a junior high or senior high coach.

Techniques and theory of coaching interscholastic athletics

Introduction to the history and development of athletic training as a medical profession. Introduction to methods of athletic training including injury recognition, the prevention and care of athletic injuries and emergency care are studied. Competencies in taping and wrapping techniques are included.

Introduction to Taping is an entry level class that will introduce the student to the taping and bracing aspects and skills of the Athletic Training profession. The class will cover the common taping, wrapping and bracing techniques needed to become a successful athletic training student and prepare them for transfer into an accredited athletic training education program (ATEP). Students will be tested during class time.

The kinetic and kinematic principles of human movement and the application of this movement to physical education, athletics and injury rehabilitation.

Supervised athletic event and practice coverage as an athletic trainer.

Supervised athletic event and practices coverage as an athletic trainer.

Continuation course for students planning to transfer to an accredited institution for athletic training education. Course is based in the athletic training room where the student continues to complete more advanced competencies.

 Exposure to the general working conditions of the Certified Athletic Trainer. Experiences will include a variety of locations and exposure to sports medicine information management and administrative duties of the Athletic Trainer. Course will include an immersion period with a single sport and responsibilities specific to that sport.
Intercollegiate Physical Education

**PEV-110** Varsity Baseball, Fall, 1 cr.
Study of basic and advanced fundamentals.

**PEV-115** Varsity Baseball, 1 cr.
Study of basic and advanced fundamentals as well as participation in intercollegiate baseball.

**PEV-121** Varsity Basketball, Men, 1 cr.
Study of basic and advanced fundamentals as well as participation in intercollegiate basketball.

**PEV-122** Varsity Basketball, Women, 1 cr.
Study of basic and advanced fundamentals as well as participation in intercollegiate basketball.

**PEV-140** Varsity Golf, 1 cr.
Study of basic and advanced fundamentals as well as participation in intercollegiate golf.

**PEV-160** Varsity Softball, 1 cr.
Study of basic and advanced fundamentals as well as participation in intercollegiate softball.

**PEV-170** Varsity Volleyball, 1 cr.
Study of basic and advanced fundamentals as well as participation in intercollegiate volleyball.

**PEV-210** Var. Baseball II, Fall, 1 cr.
Study of basic and advanced fundamentals.

**PEV-215** Varsity Baseball II, 1 cr.
Study of basic and advanced fundamentals as well as participation in intercollegiate baseball.

**PEV-221** Varsity Basketball II, Men, 1 cr.
Study of basic and advanced fundamentals as well as participation in intercollegiate basketball.

**PEV-222** Varsity Basketball II, Women, 1 cr.
Study of basic and advanced fundamentals as well as participation in intercollegiate basketball.

**PEV-240** Varsity Golf II, 1 cr.
Study of basic and advanced fundamentals as well as participation in intercollegiate golf.

**PEV-260** Varsity Softball II, 1 cr.
Study of basic and advanced fundamentals as well as participation in intercollegiate softball.

**PEV-270** Varsity Volleyball II, 1 cr.
Study of basic and advanced fundamentals as well as participation in intercollegiate volleyball.

**PEV-900** Field Trip, 1 cr.
Supplemental enrichment courses related to the Social Sciences which includes special projects. P/Q grading.

Philosophy

**PHI-101** Intro to Philosophy, 3 cr.
Considers broad fundamental ideas about knowledge, the nature of reality, human nature and society. It is also concerned with words and concepts, their meaning and their logical relationship to each other.

**PHI-105** Intro to Ethics, 3 cr.
This introductory course examines contemporary ethical conflicts and provides an understanding of the language, concepts and traditions of ethics.

**PHI-114** Critical Thinking, 3 cr.
A study of the processes by which we develop and support our beliefs and evaluate the strength of arguments made by others in real-life situations; includes practice in valid reasoning, presentation of arguments, and analysis of the use of language to influence thought.

**PHI 128** Philosophy of Religion, 3 cr.
An inquiry into the philosophical issues related to religious beliefs and concerns such as the existence and nature of God, the problem of evil, the mind-body problem, and the immortality of the soul, supernatural events, religious experiences, faith and reason, and the meaning of life.

**PHI-142** Ethics in Business, 3 cr.
Ethics in Business addresses moral issues that confront the contemporary business community. Traditional ethical systems provide a framework with which to analyze issues in areas of corporate responsibility and the rights and obligations of employers and employees.

**PHI-903 History of Philosophy- Travel Tour, 3 cr.**
History of Philosophy—Travel Tour is an independent study course designed to provide students not only with appropriate course work (in the form of reading and writing assignments) related to the development of Western Philosophy, but also with an opportunity to travel to geographic locations of philosophical/historical significance (sites such as Athens, Rome, London, and Paris) so they can experience for themselves the physical locations where significant developments occurred.

Pharmacy Tech

**PHR-107** Pharmacy Technician I, 7 cr.
Foundation knowledge required for a pharmacy technician is taught in this course. Topics covered include an orientation to the pharmacy technician career, pharmacy law and ethics, relevant medical and pharmaceutical terminology, and pharmaceutical calculations.

**PHR-117** Pharmacy Technician II, 7 cr.
The second pharmacy technician core course includes the study of pharmacology, learning how to communicate effectively with clients and co-workers, and insurance filing and inventory procedures. Brief clinical rotations in a hospital and a retail pharmacy are required.

**PHR-121** Pharmacy Technician Seminar, 1 cr.
A capstone course to prepare students for entering the job market and for the certification exam.

**PHR-122** Pharmacy Tech Career Development, 1 cr.
Designed to assist the student with development of skills in completing the Pharmacy Tech online modules. Prepares student for Pharmacy Tech profession by assisting students in their leadership and professional development for the workplace.

Corequisite: PHR-107 or PHR-117

**PHR-904** Practicum, 3 cr.
On the job training under the supervision of a registered pharmacist.
Physics

PHY-162 College Physics I, 4 cr.
Demonstrations, lectures, recitations and laboratory work beginning a two-semester sequence covering the subject. Mechanics is primarily covered during the first semester. Recommended for pre-medical, dental, pharmacy and liberal arts student interested in the sciences. Prerequisite: An elementary understanding of algebra, trigonometry and geometry from high school.

PHY-172 College Physics II, 4 cr.
Continuation of PHY-162. Thermodynamics, electricity and magnetism are covered in this semester. Lecture and laboratory. Prerequisite: PHY-162.

PHY-184 Applied Physics, 4 cr.
The course will develop the mathematical and analytical techniques required for making accurate computations in applied physics. In parallel an understanding of the applications will be developed through hands on labs. Topics covered will include: systems of units, forces, torques, static equilibrium, kinematics, energy and momentum. Co-requisite: MAT-101.

PHY-212 Classical Physics I, 5 cr.
Demonstrations, lectures recitations and laboratory work beginning a two-semester sequence covering the subject. Mechanics is primarily covered in the first semester. Recommended for those planning to major in engineering, physics, chemistry and mathematics. Prerequisite: Concurrent enrollment or previous course in calculus.

PHY-222 Classical Physics II, 5 cr.
Continuation of PHY-222. Thermodynamics and electricity and magnetism are covered in this course. Lecture and laboratory.

PHY-709 Introduction to Technical Physics, 4 cr.
For students intending technical careers, this course is designed to introduce a variety of physical concepts in one semester. Topics included are measurement, rate of change, linear and non-linear relationships, motion, force, rotation, torque, equilibrium, work, energy, machines, power, momentum, stress, vibrations, waves, fluids, pressure, flow rate, gasses, heat, temperature, thermal properties of matter, heat engines, refrigeration, electrical quantities, and the basics of electrical measurement. Standard physics topics will be reinforced and enhanced with hands-on activities and a variety of applied problems of special interest to the technician.

Practical Nursing

PNN-275 Normal Nutrition, 3 cr.
Provides the student with a basic background of the nutrients essential to maintain the physical and mental well-being of the human body.
(Formerly HL-118A)

PNN-662 Practical Nursing II, 7cr.
Practical Nursing II continues to examine the concepts of human needs, the nursing process, and caring. The roles of the practical nurse as (1) provider of care, (2) coordinator of care, and (3) member of the discipline of nursing will continue to be discussed by exploring disease processes and human needs of the adult and older adult.

PNN-663 Practical Nursing III, 4 cr.
Practical Nursing III completes the practical nursing student’s exploration of the concepts of human needs, the nursing process, and caring. The roles of the practical nurse as (1) provider of care, (2) coordinator of care, and (3) member of the discipline of nursing will be concluded by exploring the areas of family nursing and mental health nursing. Concepts of leadership, management, and professional development will be explored. Obtaining licensure, continuing education, and finding employment will be discussed for the practical nursing graduate.

PNN-664 Practical Nursing I, 4 cr.
Practical Nursing I introduces the beginning practical nursing student to the concepts of human needs, the nursing process, and caring utilizing theory and lab practice. The roles of the practical nurse as (1) provider of care, (2) coordinator of care, and (3) member of the discipline of nursing will be explored.

PNN-665 Practical Nursing I Clinical, 1 cr.
Practical Nursing I Clinical will allow the beginning practical nursing student to meet human needs utilizing the nursing process and displaying caring behaviors. The student will demonstrate the following roles (1) provider of care, (2) coordinator of care, and (3) member of the discipline of nursing while caring for stable, noncomplex clients in a long-term care setting. P/Q grading.

PNN-666 Practical Nursing II Clinical, 3 cr.
Practical Nursing II Clinical allows the practical nursing student to meet human needs utilizing the nursing process and displaying caring behaviors. The student will demonstrate the following roles (1) provider of care, (2) coordinator of care, and (3) member of the discipline of nursing while caring for stable, noncomplex clients in an acute care setting. P/Q grading.

PNN-667 Practical Nursing III Preceptorship, 2 cr.
Practical Nursing III Preceptorship is designed to assist the student in transitioning into the role of an entry level practical nurse. Students will work with a preceptor to plan, implement, and evaluate care to assigned patients in a long term care setting. The student will demonstrate positive communication skills and begin to work as an effective member of the discipline of nursing. P/Q grading.
Political Science

POL-110 Intro Political Science, 3 cr.
A general introductory course in the fundamental concepts, institutions, principles and procedures of political science. Background in classical political theory through exposure to ideas of past political philosophers (such as Aristotle, Machiavelli, Hobbes, Locke, Marx and others). Studies comparative systems through consideration of governments of Great Britain, France and Canada.

POL-111 American National Government, 3 cr.
Review of basic fundamentals of government including federalism, the political process, the presidency, the congress and the judicial system.

POL-112 American State & Local Government, 3 cr.
Course examines the principles and practices of American state and local government as well as applications and case studies in each area.

POL-121 International Relations, 3 cr.
Study of elements of national power and the formulation of foreign policy. Examination of national, state and international politics from 1871 to the present, including international organization, law and future prospects.

POL-125 Comparative Politics & Government, 3 cr.
Survey of the methods, ideologies and main ideas in the field of comparative politics. Introduction to comparative research. Study and comparison of governments and institutions across nation-states.

POL-135 World Politics, 3 cr.
The study of international politics and the interaction between state and non-state actions, with emphasis on those elements underlying the international political system.

POL-201 The United States Constitution, 3 cr.
This course focuses on the historical evolution of the United States Constitution with emphasis on its antecedents, interpretation and change. Topics include a study of the Constitution’s historical background and its basic features, a study of the seven articles, the twenty-six amendments and examination of current topics.

POL-213 Critical Thinking for Contemporary Society, 3 cr.
Through study of the process of thinking and the response to current affairs, consider many of the personal, economic and social issues affecting personal and civic responsibility in today’s global environment.

Psychology

PSY-111 Intro to Psychology, 3 cr.
A survey course which provides an introduction to the study of psychology with emphasis on the history of psychology, learning, personality, behavior, motivation, perception, psychological disorders and their treatment, and social psychology as well as other areas

PSY-121 Developmental Psychology, 3 cr.
Studies human development from conception through the lifespan. Physical, emotional, social, cognitive and moral aspects are studied in the classroom, by lecture, file/video, projects, and observation and by reading the literature.

PSY-211 Psychology of Adjustment, 3 cr.
Increases student’s knowledge and experiences relating to various populations with disabilities. Adjustment to physical and/or mental disability, conflicting treatment models, impact on self, family, community and society are examined.

PSY-222 Child Psychology, 3 cr.
Covers development from conception to childhood. Emphasis is on child study, growth and development of psychosocial, motor personality, mental and emotional aspects, sensory and behavior development. Prerequisite: PSY-111 OR PSY-121.

PSY-223 Child & Adolescent Psychology, 3 cr.
This course looks at children from a developmental perspective and reflects how children change as a result of age and experience. Developmental processes are presented in three distinct categories or domains – biosocial, cognitive, and psychosocial.

PSY-224 Adolescent Psychology, 3 cr.
Psychology of Adolescence explores the rapid physical, social, emotional, and cognitive changes of adolescents. Students distinguish myths about adolescence from research findings and examine the importance of cultural and historical factors in this crucial transition from childhood to adulthood. Prerequisite: PSY-111 or permission of the instructor.

PSY-225 Adult Developmental Psych., 3 cr.
Focuses on the growth and development of an individual from the middle to later years of the lifespan. The course examines the biological, psychological, and sociological aspects of aging such as the speed of behavior, mental functioning, mental disorders, aging, and death and dying. Student survey myths about the elderly along with current research in the field of geropsychology and gerontology.

PSY-241 Abnormal Psychology, 3 cr.

PSY-251 Social Psychology, 3 cr.
Explores social interaction from both the psychological and sociological perspectives. It is the study of how we think about, relate to, and interact with each other.

PSY-261 Human Sexuality, 3 cr.
Human Sexuality focuses on normal sexual development, human sexual responses, and common sexual problems. It provides factual information on human sexuality and raises practical questions about human sexual behavior. It also helps students evaluate their views and values concerning sexual behavior. Prerequisite: Students must have taken one of the following three courses: PSY-111, SOC-110, SOC-120 or have permission of instructor.

PSY-281 Educational Psychology, 3 cr.
Survey of behavioral theory, classical, operant and vicarious learning. Studies the nature of the learning process, conditions the facilitate learning, problems of learning measurement leading to modern cognitivist concepts, and other variables that affect the learning process.

Reading

RDG-030 Intro to College Reading I, 1 cr.
Individualized reading skill development designed to improve comprehension, vocabulary and reading rate. Preliminary course for RDG-031 for some students based on reading level. P/Q grading.
Recreation Fieldwork I is designed to give the student practical techniques and also develop an understanding of group dynamics.

Students gain an understanding of leadership theories and techniques, along with the developing an understanding of individual and group wellness programs. Lecture and laboratory.

Backpacking, 2 cr.
The course contains basic backpacking skills. Skills covered will include camp craft, equipment and clothing selection, menu planning, and safety in a wilderness setting. Students will attend class to prepare for a two-and-one-half day backpacking trip.

Concepts of Wellness, 3 cr.
Organizing and implementing wellness programs for employees in agencies and organizations. Emphasis will be on introduction to and recruitment of employees, fitness testing, and prescription of individual and group wellness programs. Lecture and laboratory.

Foundations of Recreation, 4 cr.
Designed to help the student better understand the role of recreation and leisure in our society. Provides students with information on agencies providing recreational services.

Foundations of Recreation, 3 cr.
Foundations of Recreation is a course designed to help the student to better understand the role of recreation in our society. There are three one-hour lectures a week in which the student will gain awareness of the history of recreation from early man to modern man. The course will also provide the student with current information of the numerous agencies providing organized recreation along with certification, professionalism, and opportunities offered in recreation.

Recreation Leadership, 3 cr.
The student will gain an understanding of leadership theories and techniques, along with the developing an understanding of group dynamics as it relates to specific populations in the recreation and leisure practices.

Recreation Leadership, 4 cr.
Students gain an understanding of leadership theories and techniques and also develop an understanding of group dynamics relating to specific populations.

Recreation Fieldwork I, 2 cr.
Recreation Fieldwork I is designed to give the student practical on the job experience. It will provide the student with an opportunity to plan, implement and evaluate recreational programs.

Orienteering, 2 cr.
Provides students with the opportunity to learn and develop map and compass skills. Specific skills and knowledge include reading and understanding maps, land navigation techniques, and sport orienteering. Emphasis will be placed on integrating this activity into an outdoor recreation program.

Outdoor Living Skills, 3 cr.
The course is designed to educate the student on how to travel safely for extended periods in the back-country. The essentials of life and how they can be provided in an outdoor setting will be presented. Related topics such as navigation, back-country medicine and wilderness concepts will also be discussed.

Introduction to River Kayaking, 3 cr.
To teach beginner paddlers to safely and enjoyably kayak on gentle rivers.

Adventure Sports & Recreation, 3 cr.
This course is designed to prepare the student for Guiding and instructing in the Adventure sports field. Drawing on curricula from the American Canoe Association, (A.C.A.), the American Wilderness Leadership School (A.W.L.S.), and Professional Association of Diving Instructors (PADI) content will focus on: Teaching and Learning Styles, Assessment, Lesson Planning, Curriculum Design, Delivery Options, and Evaluation. Students will be required to design a course and facilitate a classroom session.

Program Planning & Organization, 3 cr.
This course is designed to prepare the professional recreation student for the task of effective planning, organizing, implementing and evaluating various recreation programs. As well as understand practical applications in agency program planning, equipment and facility use, program budgets, and staff consideration.

Program Planning and Organization, 4 cr.
Students gain an understanding of many different recreation programs areas and the aspects of developing and conducting programs to meet the needs of various populations.

Intro to Outdoor Recreation, 3 cr.
Introduces students to the breadth, depth and scope of outdoor recreation. Topics include the history and philosophy of recreation; the roles that the government and the private sector play in outdoor recreation; the importance of leadership; the basics of program design; and the methods of researching job opportunities in the field. Specific skills include trip planning, menu planning, expedition behavior, outdoor cookery, selection of gear and clothing, campsite management, map and compass.

Recreation Practicum, 5 cr.
Advanced practical field experience.

Religion

Survey of World Religions, 3 cr.
A survey of the major religions of the eastern and western world. Each is placed in its historical context, and its major tenets are explored. Goals include a general understanding of the various religions studied, some specific insights into each religion’s belief structures and discussion of the general function of religion in human experience.

Science

Undergraduate Research in STEM, 2 cr.
Undergraduate research in a STEM area (Science, Technology, Engineering, and Mathematics). A student will choose an interdisciplinary project to work across at last two disciplines. Problem solving in each of the areas is included. Lecture and laboratory. Prerequisite: 1 year of high school science and algebra.

Infinity Scholars I-Seminar, 1 cr.
Scholarship expectations, introduction to research projects, service learning and career/educational planning. Prerequisite: recipient of NSF-CSEM scholarship.

Infinity Scholars II Seminar, 1 cr.
A research/capstone project in the area of study for students receiving a NSF-CSEM scholarship. Prerequisite: NSF-CSEM scholarship recipient and sophomore status.
SCI-131 Natural History Workshop, 1 cr.
Short-term courses studying various topics in natural history.
Does not count toward associate degree (AA or AS) science requirement.

**Sign Communication Skills**

SCS-101 Basic Sign Language, 2 cr.
Presents students with basic skills in the use and understanding of signed English.

**Student Development**

SDV-061 Independent Living Skills I, 4 cr.
The purpose of this course is for students to learn to independent adult living skills; first to prepare meals in a safe environment. Students will learn kitchen safety, basic meal planning and serving techniques. Students will learn to follow multi step directions to prepare food in a safe manner.

SDV-075 Strategies for Academic Success, 1 cr.
A human development seminar designed to help individual students increase their academic potential. Behavioral modification techniques are used. The effort is to help the student's behavior become consistent with the student's stated intentions concerning academic work. Access to this course is by referral.

SDV-103 Successful Learning, 1 cr.
Students master the academic and personal skills needed to succeed in higher education and in life. Content will cover academic, communication and life management skills. Goal setting, time management, note taking, test taking and how to be a lifelong learner will also be covered.

SDV-111 Success Seminar, 1 cr.
The course will examine concerns faced by students as a member of modern society. It is designed to assist students in making sound decisions concerning physical, mental and financial health, and to use non-working hours in a creative way. Critical thinking skills will be emphasized students analyze written documents, including those financial, legal, and medical.

SDV-125 Workplace Readiness, 1 cr.
This course is designed to assist students in obtaining and maintaining employment. Topics include making career decisions, using labor market information, developing a portfolio, and demonstrating positive attitudes and behaviors.

SDV-131 Career Exploration, 2 cr.
Students learn about themselves, theories about career, and resources available to assist in the career exploration and decision-making process.

SDV-143 Career Exploration II, 2 cr.
Career Exploration II is a continuation of Career Exploration I. This course will provide students with an opportunity to gain further knowledge about the many different types of careers available. Students will explore career outlook information, educational requirements, job descriptions and essential job search communications. Students will compile documents to create their personal portfolio.

SDV-154 Successful Learning II, 1 cr.
This course helps students expand on mastering intellectual and self-aptitude skills through brain game activities and other exercises that will increase life-long learning and improve brain health and performance.

SDV-173 Introduction to Reasoning, 2 cr.
Introduction to Reasoning is a course that provides students with an opportunity to gain knowledge and skills to help one improve their own behavior as well as the behavior of others. It allows students to gain reasoning, critical thinking, and problem solving skills as well as how to influence others.

SDV-191 Positive Psychology and Wellness, 3 cr.
This course provides an introduction to the study of topics related to happiness and the positive aspects of human experience and wellness. The first part of the course will focus on the basic areas of research in positive psychology and the ways to apply the research to your own life. The second part of the class will focus on personal wellness and self-care.

SDV-195 Student Government I, 1 cr.
Encouraging academic excellence within the realm of providing social, recreational, educational and cultural activities.

SDV-213 Coop Career Experience, 2 cr.
Students will be given the opportunity to apply real world situations while preparing a meal for college students and members of the college and/or community and to evaluate their experience and observations. Social skills required in various occupational settings will be developed, emphasizing how appropriate personal attitudes lead to business success.

SDV-250 Service Learning, 1 cr.
Offers an opportunity to explore professional and technical aspects within an organization and to reflect on the experience.

**Sustainable Energy Resources**

SER-101 Energy, Sustainability & the Environment, 3 cr.
Introduction to Sustainable Energy Resources is designed to provide a basic understanding of energy, current trends in energy consumption, and the role of sustainable energy resources in today's society. Topics covered will include matter and energy laws, the history of energy usage by humans, the categories of energy resources, and the environmental problems currently being caused by energy consumption.

SER-111 Intro to Wind Energy Resources, 3 cr.
Introduction to Wind Energy Resources is designed to provide a basic understanding of wind as an energy resource. Topics covered will include the history of wind energy usage; the location, magnitude, and availability of wind energy resources; wind energy technologies; and the economic and environmental issues associated with using wind energy resources.

SER-114 Blueprint Reading, 1 cr.
Fundamentals, principles, and practices involved in producing and reading blueprints utilized in the different sectors of the renewable energy industry with a focus on basic blueprint reading.

SER-116 Career Seminar, 1 cr.
A study of the careers available within the renewable energy sector, with an emphasis on analyzing renewable energy industries as related components of a dynamic system. Students will also learn about drafting cover letters, creating resumes, interviewing, and networking.

SER-121 Intro to Biomass Energy Resources, 3 cr.
Introduction to Biomass Energy Resources is designed to provide a basic understanding of biomass as an energy resource. Topics covered will include the history of biomass energy usage; the location, magnitude, and availability of biomass energy resources; biomass energy technologies; and the economic and environmental issues associated with using biomass energy resources.
SER-124 Industrial Safety, 1 cr.
A study of principles and practices used to establish a safe and efficient environment for personnel in the renewable energy industry and various sectors thereof. The course focuses on general industrial safety, safety and health regulatory agencies and organizations, hazard recognition and correction, and first aid.

SER-201 Sustainable Energy Resources Mgt., 3 cr.
Introducing the concepts of natural resources management with an emphasis on sustainable energy resources. Topics covered include basic natural resources management practices; past, present, and future usage and demand of energy resources; the role of sustainable energy resources in current and future energy policies; and the management of sustainable energy resources.

SER-230 Maintenance & Repair of Pumps & Valves, 4 cr.
Maintenance and Repair of Pumps and Valves is designed to provide the student with a basic understanding of the types of pumps and valves used in water processing and wastewater treatment facilities. Topics covered will include the principles of pump and valve usage, the types of pumps and valves found in water processing and wastewater treatment facilities, and pump and valve inspection, maintenance and repair.

Sociology

SOC-110 Intro to Sociology, 3 cr.
A survey course applying basic sociological concepts, theories, and methods to examine society, culture, cultural institutions, cultural diversity, and cultural stability and change.

SOC-115 Social Problems, 3 cr.
Applies basic scientific sociological concepts and principles to the examination of contemporary social issues such as crime, poverty, violence, and inequality.

SOC-120 Marriage and Family, 3 cr.
The sociological study of the family and family-related issues in cultural, cross-cultural, historical, and social context.

SOC-126 Social Science Interim, 1 cr.
Supplemental enrichment course related to the Social Sciences which includes special projects. P/A grading.

SOC-160 Introduction to Social Work, 3 cr.
An introductory course in social welfare systems and social work practice that surveys the historical development of the social work profession in conjunction with the development of the social welfare services in the United States.

SOC-186 Contemporary Global Issues, 3 cr.
A survey course to identify and analyze the variety and extent of global economic, political, social and cultural problems and issues.

SOC-200 Minority Group Relations, 3 cr.
Survey of the contributions that various minorities have made to the development of the United States.

SOC-220 Sociology of Aging, 3 cr.
Discusses the psychological and societal changes and needs of the elderly. Emphasis is on the effect of, and adaptation to, role changes such as retirement and institutionalization. It also deals with perspectives on adult development in the areas of emotional, cognitive and personality development. Grief, dying, and death, the final stages of the life process are examined from varying points of view.

SOC-270 Social & Behavior Research Methods, 3 cr.
An introduction and survey of the major concepts and strategies involved in the undertaking of empirical research. Students learn the meaning of such terms as reliability, validity, variance, and hypothesis. The major research methods: include the true experiment, field research, secondary analysis, and surveys. Students assess sampling techniques and table construction.

SOC-890 Service Learning, 1 cr.
The Service Learning field experience offers students a hands-on opportunity to explore professional and technical aspects within an organization. Through this Service Learning project the student must be involved with a meaningful project, have an academic connection, and have an opportunity to reflect on the experience upon its completion.

Speech

Development of the basic skills involved in various speaking situations, including oral presentations and interpersonal speaking. Emphasis is placed on organization, voice, articulation, listening, non-verbal communication, critical thinking, and methods of dealing with speech comprehension.

SPC-112 Public Speaking, 3 cr.
This course helps students develop confidence in both professional and personal presentation skills. Topics include audience analysis in both professional and personal presentation skills, critical thinking, organization, effective listening, audience message retention, and the use of visual help. Course requirements include that the student be actively engaged in researching appropriate related material from newspapers, periodicals, or the web. This research will enhance the students learning and develop deeper insights into the course topics. The instructor will define specific course related assignments that require active research efforts as a requirement for successful course completion.

SPC-121 Interpersonal Communication, 2 cr.
Designed to improve ability in speaking to others in interpersonal situations such as conversation, relationships, business, and group discussions.

SPC-122 Interpersonal Communications, 3 cr.
Examines how humans communicate in one-on-one situations through personal and professional relationships.

Surgical Technology

SUR-121 Surgical Techniques I, 6 cr.
This course provides the student with an orientation to the surgical technology profession and operating room theory. Principles and concepts of physical environment, aseptic technique, sterilization and disinfection, instrumentation, equipment and supplies and their role in surgical case management along with all other techniques associated with the scrub role are presented. Students will be introduced to the surgical environment during a 16 hour observational experience within a surgical department.

SUR-122 Intro to Surgical Technology, 4 cr.
This course will allow students to apply principles learned during Surgical Techniques I lecture in a simulated surgical suite for the purpose of practicing and learning basic skills outlined in the objectives of this course. Emphasis is on instrumentation and fundamental surgical skill development. The transportation of the surgical patient, positioning, patient preparation, and draping are presented. Students are required to demonstrate competence in
SUR-123  Patient Care Concepts, 2 cr.
This course intends to introduce the student to the practice of surgical patient care. Preoperative and postoperative routines as well as some of the responsibilities of the surgical technologist in the circulating role are discussed. The bio-psycho-social needs of the patient are addressed in addition to patient identification, review of the chart, documentation, surgical transport and positioning, skin preparation, urinary catheterization, specimen care, wound classification, vital signs, hemo-dynamics, monitoring, and discharge planning. The student will learn appropriate response to legal, ethical, and moral issues, as well as emergency situations and personnel safety practices as outlined by OSHA Standards.

SUR-129 Surgical Foundations, 6 cr.
This course provides the student with an orientation to the surgical technology profession and operating room theory. Principles and concepts associated with the professional aspects of surgical technology are presented. Foundational concepts such as the role of the surgical technologist, professional aspects, and medical law will be covered. A theoretical overview will be given for introduction into: the surgical environment, biomedical sciences, aseptic techniques, sterilization and disinfection, instrumentation, equipment and supplies, wound healing and diagnostic procedures. Prerequisite: BIO-163 OR BIO-168, HSC-114. Co-requisite: SUR-131

SUR-131 Surgical Techniques Lab, 4 cr.
This course will allow students to apply principles learned during Surgical Procedures Lecture in a hands-on laboratory setting. Students will further redefine skills related to the three phases of case management as they apply to each surgical specialty and its specific cases.

SUR-222 Surgical Techniques II, 2 cr.
This course is taught in conjunction with Surgical Procedures. This course helps further refine knowledge obtained in Surgical Procedures by offering the student study projects that they can apply information relating to surgical anatomy, physiology, pathophysiology, diagnostic interventions, instrumentation and equipment, and procedural steps.

SUR-223 Surgical Procedures, 6 cr.
This course provides the student with the preoperative theory, procedural anatomy, physiology, pathophysiology, diagnostic interventions, procedural considerations, instrumentation, and steps related to various surgical specialties. Specialties include: diagnostic, general, obstetrics and gynecology, genitourinary, ear, nose and throat, ophthalmic, plastic, orthopedic, peripheral vascular, cardiovascular, neurosurgery. Students will incorporate safe perioperative patient care techniques, medical terminology, and pharmacology to each procedure.

SUR-227 Surgical Procedures Lab, 2 cr.
This course will allow students to apply principles learned during Surgical Procedures lecture in a hands-on laboratory setting. Students will further redefine skills related to the three phases of case management as they apply to each surgical specialty and its specific cases.

SUR-420 Pharmacology for Surgical Tech, 2 cr.
This course reviews basic math and science skills. It provides an introduction to surgical pharmacology and emphasizes the classifications of medications used in surgery. The student will become familiar with the general terminology used with medication application, the use of drugs in the care of surgical patients, and the principles of anesthesia administration for routine cases and emergency procedures.

SUR-430 Microbiology - Surgical Tech, 2 cr.
This course includes the correlation of the relationship to the practice of sterile technique and infection control in the operative setting. The student will use the microscope to contrast and compare the structure and characteristics of microorganisms.

SUR-440 Biomedical Science for Surgical Tech, 2 cr.
This course provides a broad base of knowledge for the entry-level surgical technologist in the areas of computers, electricity, physics, and robotics. As surgical equipment becomes more sophisticated, understanding the fundamental principles of these technologies is essential.

SUR-517 Surgical Procedures Practicum 1, 3 cr.
This practicum application provides the student the opportunity to apply classroom theory learned in the first and second semesters in a hospital operating room.

SUR-519 Surgical Technology Practicum, 4 cr.
This course is provides students the opportunity to attend practicum rotations in the various surgical specialties while scrubbing a variety of perioperative cases to build skills required for complex perioperative patient care. Emphasis is placed on improving their technical skills, critical thinking, speed, efficiency, and autonomy in the operative setting. The latter portion of this course provides the student with an opportunity to scrub in specialty areas as the primary surgical technologist. Students will gain expertise in sterile technique, improve their anticipation of surgeon’s needs, and further increase their dexterity and speed. Emphasis is placed on preparing students for transition into the job market.

SUR-520 Surgical Technology Practicum I, 2 cr.
Under the direct supervision of a clinical preceptor, students will demonstrate proper surgical scrub techniques and maintain aseptic technique. Emphasis will be on identifying and setting up supplies and instruments for individual surgical cases, establishing a sterile field, and preparing instruments and supplies for the surgical procedure and identify and utilize proper care of specimens. As competency develops, students will move up to the first scrub position during surgical cases, with the assistance of an assigned surgical technologist and supervision of the clinical preceptor. The student will learn to assist the surgeon while maintaining a safe, patient-centered environment. The student reviews procedures and specific patient needs prior to assisting with each procedure.

Welding

WEL-111 Welding Blueprint Reading, 3 cr.
Blueprint reading and layout to develop essential skills to permit use of blueprints in job-like situations. (Formerly WE-113C)

WEL-114 Introduction to Fabrication & Machining, 3 cr.
Designed to develop the skills for welding, fabrication, sheet metal fields. To practice operation of tools, such as lathes, milling machines, borers, grinders, and drill presses. To gain knowledge of metals; read and interpret blueprints and develop sketches, perform layouts, and generate specifications for where and how to machine metal. Selecting the correct tools, materials and using precision measuring devices to produce quality parts.

WEL-121 Oxy Fuel Welding & Cutting, 4 cr.
Oxy-acetylene welding in correlation with identification of metals; care and use of welding equipment; selection of rods and fluxes; and safety. Lecture and laboratory. (Formerly WE-111C)
WEL-128 Brazing / Soldering, 2 cr.
Identification of metal and what filler is needed to join these materials. Prerequisites: WEL-121 and WEL-160

WEL-158 Structural Weld, 4 cr.
Designed to develop techniques required to properly weld structural steel and pass the AWS certification examination. Lecture and laboratory. Prerequisites: WEL-121 and WEL-160.

WEL-160 Arc Welding I (SMAW), 5 cr.
Safety factors and practices relating to welding machines, electrodes and positions used in arc welding. Lecture and laboratory.

WEL-179 Special Processes/Procedures, 3 cr.
Ferrous to ferrous, nonferrous to nonferrous hard surfacing used in the welding field today. Lecture and laboratory. Prerequisites: WEL-121 and WEL-160.

WEL-180 GMAW/GTAW, 2 cr.
Studies the necessary fundamentals of the metallic inert gas and tungsten gas processes.

WEL-183 GMAW/GTAW, 3 cr.
Studies MIG and TIG welding in correlation with the use of equipment, variables, safety and data for welding metals. Prerequisite: WEL-180.

WEL-210 Production Welding, 3 cr.
Work is done quickly, uniformly and close to tolerances. Design layout and building jigs from prints are required. Prerequisites: WEL-180 and WEL-183.

WEL-228 Introduction to Welding, Safety and Health of Welders, SENSE I, 1 cr.
This course will provide students with orientation to the welding profession and will cover the basics of safety & health within the welding profession. This course aligns to SENSE Level 1, Module 1 and Module 2 – Key Indicators 1-6.

WEL-233 Print Reading and Welding Symbol Interpretation, SENSE I, 3 cr.
Provides instruction in interpreting elements of welding prints (drawings or sketches), focusing on measurement, American Welding Society welding symbols, and fabrication requirements. Students will understand how to prepare, assemble and tack welding parts according to drawings or sketches, using proper materials and tools. This course aligns to SENSE Level 1 Module 3: Drawing and Welding Symbol Interpretation, Key Indicators 1 and 2.

WEL-244 Gas Metal Arc Welding Short Circuit Transfer, SENSE I, 2 cr.
Focuses on proper weld safety, machine setup and welding techniques of Gas Metal Arc Welding Short-Circuiting Transfer. Students perform American Welding Society compliant welds on carbon steel, in flat, horizontal, vertical and overhead positions. This course will prepare students to take an AWS welder certification test, which is recommended. This course aligns with SENSE Level 1 Module 5 Key Indicators 1-7.

WEL-245 Gas Metal Arc Welding Spray Transfer, SENSE I, 2 cr.
Focuses on proper weld safety, machine setup and welding techniques of Gas Metal Arc Welding Spray Transfer. Students perform American Welding Society compliant welds on carbon steel in flat and horizontal positions. This course will prepare students to take an AWS welder certification test, which is recommended for its successful completion. It aligns with SENSE Level 1 Module 5 Key Indicators 1, 2 and 8-12, as well as Module 2 - Indicator 7, Module 3- Key Indicator 3, and Module 9 – Key Indicator 2.

WEL-251 Gas Tungsten Arc Welding for Carbon Steel, SENSE I, 2 cr.
Focuses on proper weld safety, machine setup and welding techniques for Gas Tungsten Arc Welding. Students perform American Welding Society compliant welds on carbon steel in flat, horizontal, vertical and overhead positions. This course will prepare students to take an AWS welder certification test, which is recommended for successful completion of this course. This course aligns to SENSE Level 1, Module 7 – Key Indicators 1-7, as well as Module 2 - Key Indicator 7, Module 3- Key Indicator 3, and Module 9 – Key Indicator 2.

WEL-252 Gas Tungsten Arc Welding for Aluminum, SENSE I, 1 cr.
Focuses on proper weld safety, machine setup and welding techniques for gas tungsten arc welding. Students perform American Welding Society compliant welds on aluminum in flat and horizontal positions. This course will prepare students to take an AWS welder certification test, which is recommended for successful completion of this course. This course aligns to SENSE Level I, Module 7 Key Indicators 1, 2 and 13 – 17, as well as Module 2 - Key Indicator 7, Module 3- Key Indicator 3, and Module 9 – Key Indicator 2.

WEL-253 Gas Tungsten Arc Welding for Austenitic Stainless Steel, SENSE I, 1 cr.
Focuses on proper weld safety, machine setup and welding techniques for Gas Tungsten Arc Welding. Students perform American Welding Society compliant welds on austenitic stainless steel in flat, horizontal, and vertical positions. This course will prepare students to take an AWS welder certification test, which is recommended for successful completion of this course. This course aligns to SENSE Level I, Module 7 Key Indicators 1, 2 and 8-12 as well as Module 2 - Key Indicator 7, Module 3- Key Indicator 3, and Module 9 – Key Indicator 2.

WEL-254 Welding Inspection and Testing Principles, SENSE I, 1 cr.
Students will visually examine test weldments and thermally cut surfaces per multiple welding codes, standards, and specifications. This course aligns to SENSE Level I, Module 9: Welding Inspection and Testing Principles.

WEL-274 Shielded Metal Arc Welding I, SENSE I, 3 cr.
Focuses on safety, amperage settings, polarity and the proper selection of electrodes for the shielded metal arc welding process. Students will perform American Welding Society compliant welds on carbon steel, using visual and destructive methods for determining weld quality. This course aligns to SENSE Level 1 Module 4 - Key Indicators 1-7 for the flat and horizontal positions, as well as Module 2 - Key Indicator 7, Module 3 - Key Indicator 3, and Module 9 - Key Indicator 2.

WEL-275 Shielded Metal Arc Welding II, SENSE I, 3 cr.
Focuses on safety, amperage settings, polarity and the proper selection of electrodes for the Shielded Metal Arc Welding (informally known as stick welding) process. Students perform American Welding Society compliant welds on carbon steel, in vertical up and overhead configurations, using visual and destructive methods for determining weld quality. This course aligns to SENSE Level 1 Module 4: Shielded Metal Arc Welding Key Indicators 1-7 for the flat and horizontal positions, as well as Module 2 - Key Indicator 7, Module 3 - Key Indicator 3, and Module 9 – Key Indicator 2.
WEL-310  Pipe Welding, 5 cr.  
Develops the exacting techniques required to properly weld pipe installations. Lecture and Laboratory. Prerequisites: WEL-160, WEL-180, WEL-183.

WEL-334  Trade & Industry Welding, 2 cr.  
Principles and applications of gas and MIG welding theory, safety and shop practices are covered. Lecture and laboratory.

WEL-337  Industrial Technical Welding, 2 cr.  
Introduction to electric, gas, wire and oxy-acetylene welding.

Wind Energy & Turbine Technology

WTT-103  Introduction to Wind Energy, 3 cr.  
Introduction to Wind Energy students will be exposed to the many facets of the wind industry. This course will cover the history and development of the wind industry, terminology used in the industry, types and applications of various wind turbines, environmental and economic issues of the wind industry, the future of the wind industry, other topics that are appropriate. (Formerly WT-103C)

WTT-104  Introduction to Wind Energy, 4 cr.  
Introduction to Wind Energy students will be exposed to the many facets of the wind industry. This course will cover the history and development of the wind industry, terminology used in the industry, basic tools and techniques, wind turbine components, the future of the wind industry, other topics that are appropriate.

WTT-114  Field Training and Project Operation, 5 cr.  
Field Training & Project Operations will introduce the students to industry standards of safety, operation and maintenance of wind turbines and project operations. Students will also benefit from field trips to operational projects to gain perspective of day to day operations of a wind turbine generation facility. (Formerly WT-114C)

WTT-115  Field Training & Project Operation, 4 cr.  
Field Training and Project Operations will introduce students to industry standards of safety, operation and maintenance of wind turbines, and project operations. Students will also benefit from field trips to operational sites to gain perspectives on day-to-day operations of wind turbine generation facilities.

WTT-118  Direct Current Elect Theory, 4 cr.  
Direct Current Electrical Theory is an introduction to basic electrical theory and the components that make up electrical circuits. D/C Theory will be presented in a lecture and laboratory format. Course content will include, but not be limited to basic circuits, electrical components and their applications, hands-on reinforcement of theory covered during lecture.

WTT-123  Alt Current Elect Theory I, 4 cr.  
Students will be exposed to the principles and applications of alternating current (AC). Prerequisite of AC1 is DC.

WTT-126  Basic Hydraulics, 3 cr.  
This course will introduce students to the basic structure and application of hydraulics. Students will also learn how to read hydraulic schematics and troubleshoot basic hydraulic components.

WTT-133  Wind Turbine Mechanical System, 3 cr.  
Wind Turbine Mechanical Systems will introduce the students to gearboxes and other mechanical systems that make up subsystems of today’s wind turbine.

WTT-134  Electric Motors & Generators, 4 cr.  
Electric motors and generators is an introduction to types of motors and generators that are used today. The characteristics of Direct Current and Alternating Current motors and generators will be discussed and demonstrated through lecture and hands on laboratory sessions.

WTT-204  Wind Turbine Siting, 4 cr.  
This course will allow students the opportunity to learn the techniques, methodology, and concepts used to develop projects around the world.

WTT-206  High Voltage Awareness & Fall Rescue Saf., 1 cr.  
Students will learn industry standards of wind turbine rescue and high voltage procedures. Students will also be evaluated in practical exams on power transmission and site safety. Prerequisites: All WTT-100 level courses or permission of program coordinator

WTT-214  Basic Networking/Comp Tech, 3 cr.  
Foundational training in local area networking technology, protocols, and installation procedures. Troubleshooting minor hardware problems, installing hardware, system configuration, and running diagnostics.

WTT-216  Power Generation & Transmission 3 cr.  
Power Generation and Transmission will serve as an introduction to the generation of electrical power with a wind turbine generator, moving that power through a local transmission system to a substation where a customer will purchase the generated power. This course will cover all aspects of working with components of a high voltage transmission system.

WTT-223  Airfoils and Composite Repair, 3 cr.  
Airfoils and Composite Repair will enable the student to more efficiently inspect, repair and move/transport wind turbine blades. Students will understand common industry terms used in the manufacture and repair of wind turbine blades. Prerequisite WTT-103. (Formerly WT-223C)

WTT-225  Data Acquisition & Assessment, 4 cr.  
This course will give students an understanding of how wind data is collected and analyzed for electric power generation. Students will also learn how to assess the operation and power production of individual wind turbines.

WTT-235  Programmable Logic Control Systems, 4 cr.  
This course will introduce students to Programmable Logic Controllers (PLC’s), primarily the Allen Bradley SLC 500 line of processors.

WTT-244  Alt Current Elect Theory II, 4 cr.  
Alternating Current Electrical Theory II will consist of instruction that will build upon experience gained in Direct Current Theory and Alternating Current Theory I. Students will be introduced to advanced concepts of electrical theory.

WTT-245  Electrical Practical Application, 4 cr.  
Electrical Practical Applications will provide students with practical wiring exercises involving installation, wiring, and troubleshooting of electrical devices and equipment used in, but not specific to, wind turbine control systems. Students will study electrical diagrams, design of electrical systems, and electrical safety.

WTT-250  Basic Electronics, 4 cr.  
Students will learn about analog and digital electronics at basic level of familiarization with the semiconductor devices and their...
functions. The course focuses on applications and apparatuses used in wind turbine technology. The course is accompanied by laboratory work. Prerequisites: WTT-118, WTT-123, WTT 244

**WTT-932 Internship, 5 cr.**
The wind turbine internship will give students the opportunity to apply skills developed during the first two semesters of the Wind Energy and Turbine Technology program.
Faculty & Staff

BOARD OF TRUSTEES

Janice K. Lund, President, District 2, Estherville
Pat Kibbie, Vice President, District 6, Emmetsburg
David Gottsche, District 5, Milford
Robert Jennings, District 7, Algona
Christopher Fuhrman, District 3, Spirit Lake
Jane Nolan Goeken, District 4, Spencer
Arden Kinnander, District 1, Armstrong

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Index

A
Academic Appeal Procedure 17
Academic Honors 7
Academic Policies & Procedures 13
Academic Probation 7
Academic Support Programs 8
Academic Year 11
Accident Insurance 9
Accounting 20,25,39
Accreditation 5
Adding & Dropping Courses 15
Administrative Assistant 20,25
Administrative Staff 99
Admission 5
Admission Policies: Credit Programs 5
Adult & Continuing Education 18
Adult Basic Education 18
Advance Registration 7
Advisors 8
Agribusiness Technology 25
Applying to the College 5
Art
Associate of Applied Science Pgs. 35
Associate Degree Nursing 26
Associate in Applied Science
Degree Requirements 14
Associate of Arts Degree
Requirements 13
Associate in Science Degree
Requirements 14
Athletics 10
Auditing a Class (Options) 16
Auto Collision & Paint
Technology 27-35
Automotive Technology 27
Aviation/Airport Management 21,27
B
Board of Trustees 99
Bookstore 9
Broadcast Media Specialist 21,36
Business Administration & Management 21,27
Business Specialist 35
C
Campus Housing & Food Service
Refunds 9
Career Option Programs 20
Certificates 39
Certificate Requirements 15
Certified Professional Bookkeeper 39
Change of Registration (Drop & Add) 15
Class Participation 6
Classification: Credit Students 11
CLEP 17
College Counseling Services 8
College Stores 9
College Work Study Programs 10
Communication 7
Community Service 19
Computer Programming 21,28
Construction Technology 28,35
Counseling 8
Course Descriptions 41
Course Numbering System 40
Course Loads 11
Credit Assignment in Emergency
Situations 16
Credit by Examination 17
Credit for Experiential Learning 16
Credit for Military Service 16
Credit Load 11
Crime Prevention on Campus 11
Crime Justice 22,28
D
Degree Requirements 13
Developmental Studies 8
Diesel Mechanics 30
Digital Social Media 28
Diploma Programs 35
Diploma Requirements 14
Directory Information 18
Dropping & Adding Courses 15
Drug Prevention Program 11
E
Early Childhood Education 22,29,36
Education 64-66
Electrical Tech 29
Engineering Tech 29
English as a Second Language 19
Environmental Studies 22,30
Experiential Learning 16
Events Planning 36
F
Faculty & Professional Staff 99
Financial Aid 10
Financial Aid Academic Progress 7
Foreign Students 6
G
Game Design 30
Grading System 12
Graduation Requirements 12
Grants 10
Graphic Design & Technology 22,30
Graphic Specialist 30,36
Guaranteed Student Loan (Stafford
Loan) 10
H
Honors Program 7,10
Hotel & Restaurant Management 31,36
Housing 9
Human Services/Disability Studies 22,31
HVAC 31
I
Institutional Record of Student
Complaints 11
Insurance (Accident) 9
Intramurals 10
Intercollegiate Athletics 10
International Students 6
Iowa Vocational/Technical Grant 10
J
Journalism/Photography 23
L
Landscape & Turfgrass 31,36
Legal Assistant/Paralegal 33
Libraries 8
Loan Programs 10
M
Marine Service Technology 32,36
Mass Communication 70
Massage Therapy 36
Medical Assistant 36
Medical Office Technology 37
Motorcycle & Small Engine
Technology 32,37
Music 10
N
New Start Program 8
Nursing 26
O
Office Specialist 37
Options in Credit & Grading 16
Orientation 6
P
Paralegal/Legal Studies 32
Parent Loan for Undergraduate
Students (PLUS) 10
Parts Sales & Inventory Control 37
Pell Grant 10
Pharmacy Technician 37
Pass-No Credit Grading 12
Photography 37
Placement 9
Postsecondary Enrollment Act 19
Practical Nursing 38
Presidential Scholar Honors Program 10
President's Cabinet 98
Privacy of Records 17
Probation, Academic 7
Procedures for Academic Classes 15
R
Readmission 5
Registration 15
Repeating Courses 12
Requirements for Graduation 12
Residency Requirements for
Tuition Charges 6
Restaurant Management 24,62
S
Sales & Marketing 23-32,38
Satisfactory Progress (Financial Aid) 7
Scholarships & Grants 11
Stafford Loans 10
Student Activities 11
Student Assistance Services 9
Student Centers 9
Student Government 11
Student Handbook 9
Student Housing 9
Student Life 10
Student Organizations 11
Student Rights & Responsibilities 11
Student Services 5
Student with Disabilities 9
Substance Abuse Counseling 23,33
Supplemental Educational Opportunity
  Grants (SEOG) 10
Supplemental Loans for Students
  (SLS) 10
Surgical Technology 33,38
Sustainable Energy Resource
  Management 23,34
T
Technical Programs 25
Third Age College 19
Transcript Requests 18
Transfer of Credits 16
Transfer Students 6
Transferring From Other Institutions 18
TRiO-SSS 8
Tuition & Fees 16
Tutoring 8
U
Unit of Credit 11
V
Vet Tech 33
Veterans Services 9
Vocational Programs 36
Vocational Rehabilitation 9
Vocational Supplemental Courses 18
W
Water Quality 33
Web Development & Design 24,34
Welding 38,39
Wind Energy 34,39
Withdrawal from All Classes 15
Work Study Program 10
2015 FALL SEMESTER
August 14, 17, 18, 19 Registration*
August 19, 20, 21, 24 Employee inservice, offices closed until 1 pm
August 24 ICCOC online classes begin
August 25 First Day for incoming freshmen
August 25 Evening classes begin 4:30 p.m.
August 26 Day classes begin
September 7 Holiday, no classes, offices closed
October 16 No classes, offices open
November 25 No classes, offices open
November 26, 27 Holiday, no classes, offices closed
December 11-16 Final exams
December 18 Last day of semester
December 24 - January 1 All college offices closed

2016 SPRING SEMESTER
January 7, 8, 11, 12 Registration*
January 13 First day of classes
January 18 Holiday, no classes, offices closed
February 12 No classes, employee inservice
March 14-18 Spring break, offices open
March 25 Holiday, no classes, offices closed
March 28 No classes, offices open
May 9-12 Final exams
May 13 Last day of semester & Spring Commencement

2016 SUMMER TERM
VOCATIONAL/TECHNICAL/CAREER OPTION
Schedule will vary by program and will be published by the Executive Deans’ offices

First Arts & Sciences Summer Session
May 19, 20 Registration*
May 23 First day of classes
May 30 Holiday, no classes, offices closed
June 23 Last day of session

Second Arts & Sciences Summer Session
June 24, 27 Registration*
June 28 First day of classes
July 4 Holiday, no classes, offices closed
July 29 Last day of session & Summer Commencement

* For students not preregistered.
This calendar is subject to change.
It is the policy of Iowa Lakes Community College not to discriminate on the basis of gender, race, national origin, creed, age, marital status, disability, genetic information or any other characteristics protected by applicable law in its educational programs, activities, or employment policies as required by Title VI and VII of the 1964 Civil Rights Act, Title IX of the 1972 Educational Amendments, Section 504 of the Federal Rehabilitation Act of 1973 and the Americans with Disabilities Act of 1990.

Inquiries or complaints regarding compliance with Title IX, Title VI, Title VII or 504 may be directed to Kathy Muller, Affirmative Action Officer and Title IX Coordinator, Iowa Lakes Community College, 19 South 7th Street, Estherville, Iowa 712-362-0433; to the Director of the Civil Rights Commission, Des Moines, Iowa; or to the Director of the Region VII Office of Civil Rights, Department of Education, Kansas City, Missouri. A formal discrimination complaint process is published in the Student Handbook, Employee Handbook, and the Affirmative Action Plan of the College.